



SUBSTITUTE SEQUENCE LISTING

<110> SLAUGENHAUPT, SUSAN
GUSELLA, JAMES F.

<120> GENE FOR IDENTIFYING INDIVIDUALS WITH FAMILIAL
DYSAUTONOMIA

<130> 1829-4004US1

<140> 10/041,856

<141> 2002-01-07

<150> 60/260,080

<151> 2001-01-06

<160> 89

<170> PatentIn Ver. 2.1

<210> 1

<211> 66479

<212> DNA

<213> Homo sapiens

<400> 1

ccagtgcctgc	ggctgcctag	ttgacgcacc	cattgagtcg	ctggccttctt	tgcagcgctt	60
cagcgttttc	ccctggaggg	cgccctccatc	cttggaggcc	tagtgccgtc	ggagagagag	120
cgggagccgc	ggacagagac	gcgtgcgcaa	ttcggagccg	actctgggtg	cggactgtgg	180
gagctgactc	tgggtagccg	gctgcgcgtg	gctggggagg	cgaggccgga	cgcacctctg	240
tttgggggtc	ctcaggtaa	cgatccatcc	agggtagggg	cacgggagtg	gacctctccg	300
ccggcgggtg	ccgggtgaag	gagaccggga	gcctcctctg	cctgctgcgg	gccggggact	360
ggagtgcggg	ctgcaccacc	tccttcctag	agccttaaat	tctttttgca	gccttgccac	420
ctgctccatc	gggggcgctg	ggaggcgca	cagcccaggg	atgcctgctg	cccctccagc	480
cggacttaac	ccagcctctt	gattgcttgc	agggggttga	taataacgct	gaaagcgaga	540
gtattaattc	acgatggaag	gcggcggtta	atagaggctc	gggtgctgtg	gtgcggggtc	600
tttctcgcgt	gtgagacttt	ttcgtggagg	tgggtgtcct	tgtgcttctc	catctaactg	660
ggtgttttac	gtggctttct	ctcccgttaa	cgatgatctc	cgtggagaca	gtggctgagt	720
aatcttcaga	tcccagtagt	tagcaagtgc	tcagtcggtg	ttggatgtag	gccacaaacc	780
ggatcgtaaa	gaattcaact	gtatattgac	agccacggaa	ctaataaatg	aatagatccg	840
tatgaagagt	aagcaaaaag	gcagcaaaag	cagtttttca	gcttggggac	atagagtaga	900
aatggtctgt	ccccaaatag	tgggaactgt	catttggggg	aagaatagca	agttctttgc	960
tttccagggt	gcattttagt	tgcattgtgag	acatgcttgt	gattctatca	ggagggtgaa	1020
aatgtgggtt	tagtggttaa	tttgggctaa	ttcagtcagg	gctaggcatt	taggcctaata	1080
cagcgatttg	gtgatctacc	tggatatagt	aatcatgcat	gtgatgtcta	gccaagaggt	1140
ggatagtcga	aggagcaagg	gaagaaaatg	aagcagttat	caggaaaatta	agagagaatc	1200
cacgattgac	ctttggtgtg	gagggatctt	tagcacattt	aagaactgcg	aagagtttga	1260
atcagtggag	gcaggaagggt	tggaggttgc	agatgtccaa	gaaagagtac	taataggcct	1320
aggctcctgt	gcaatatgga	ggatattcct	ttcctagcct	ggaaagaagt	ggaggggaagt	1380
cttccctccga	gaagataaag	gaataaggct	gatgggtgtg	aaatttcaga	gaaactagtt	1440
ttgaggcggt	tttatgatgt	ttaaagatga	aaaacgagca	ggcacggtgg	ctcaggcctg	1500
taatcccagc	actttgggag	gcagaggcgg	gtggatcact	tgagggttagg	agttcaagaa	1560
cagcctgggc	aacatgggtga	aaccctgtct	ctactaaaaa	tacaaaaatt	aactgggcat	1620
ggtgccgggc	gctgttaatc	ccagctactc	cggaggtctga	ggcaggagaa	tcgcttgaac	1680
ccggaaggca	gatgttgctg	tgagccgaga	tcgcggccatt	gcaccccagc	ctgggcaata	1740
agagcgaaac	tccgtctcaa	aaaacaaaaa	aacctgcatg	atatgttaga	ggttcaagta	1800
atttctagca	gttcttgaat	ataattgtca	ccaaaactta	ctaaaatcat	tgtcttcctc	1860
acttccatca	tatataaact	tacctttctc	ttatcccaca	ttatatatta	tataattcct	1920
atgacacttg	acattatctt	ctgtgtacta	ttaggattga	ttcatcttta	ttctttctat	1980
gtcatacata	tgtggggtgc	caagatgaga	gaagtctcct	tggattaaag	tgacaataag	2040
accggtgtgg	tccttgtaat	tgctaccctt	aacataagtt	agggacttac	aatcataagc	2100
cttaaaggga	tctgaatata	aataactagc	acagtaacat	ttttttcccc	tacttaggta	2160
atgttatgca	tttaagcaag	cctgattttg	ccagaccaaa	gtagatgtct	tgttttagcac	2220
tcttttctca	cgtttttatat	tgtcctggga	aaagcctggc	cagaagaaca	aagttactgg	2280

aagtagttat	gtcagggtcat	cagggtcctt	gaaatgttgg	tcatcatttt	gaagtaaatt	2340
gttgtcatgt	cccagtat	tctcttcccc	tttagaacag	taaatgcttt	tctatctttg	2400
atttcagttt	ttttatgaat	gtataaaacc	agtttataaa	tgaatagacc	tgggtgaatat	2460
taaagtcatt	tcagattctc	ttcaactgcc	agtatataaa	aatggatttt	caaatagtcg	2520
taatcagttg	gatacccttt	tgtttttcct	catgatttta	taaagatgtc	ctaatatgca	2580
aaaataaaat	gtttcccat	tcatttggtc	tttcaacttt	cccaaaggaa	taactgat	2640
tacatctttt	ttgaagaaaa	cattctaag	ttgagaatct	tgcctctcct	aaaaagaaca	2700
taaaaatagg	ttcagaattc	ctaatttgta	gaccataact	gtatagagt	ggtcagggtg	2760
ctgctataat	ccatacatgg	gtgtgtactc	agagaggtaa	gttttttctt	ttcttggtta	2820
ttctgattct	gactaccact	tcttcacccc	ctgaatcatt	tcattttaa	aaatatgggtc	2880
atttatcact	attaagctat	ttatttttct	cttagagatt	aatgattcat	caagggatag	2940
ttgtacttgt	ctcgtgggaa	tcacttcac	atgcgaaatc	tgaaattatt	tcggaccctg	3000
gagttcagg	atattcaagg	tccagggaat	cctcagtgtc	tctctctccg	aactgaacag	3060
gggacgggtg	tcattgggtc	agaacatggc	ctgatagaag	tagaccctgt	ctcaagagaa	3120
gtaagttact	gatgtagaat	gccagcatgt	gggtatgacc	cttgatttct	cttcttccaa	3180
atttctttcc	ccacatgggtc	tttctttata	tcttattgaa	tttatatcct	cccaaataaa	3240
catcttttgc	ttcatatata	tgccatgtta	gacatagctt	aaatcgtaat	ccttctttaa	3300
ctctgctgct	attttaacct	aagtcagtag	aactctgacc	ttactttttg	agtggtggtc	3360
gtacttttta	ccctctttgt	catgcaaat	ctgtttataa	gagtgggttt	tttttttttt	3420
tttttgagac	ggagtctcgc	tctgtcacc	aggctggagt	gcagtgggtg	gatcgtggct	3480
cactgcaagc	tccgcctccc	cgggttcaca	ccattctctc	gcctcagcct	cccgagaagc	3540
tgggactaca	ggcgcccgcc	accgcgccc	gctaattttt	tgatttttta	gtagatgtgc	3600
ggtttcaccg	tgtagccag	gatggctgtg	atctcctgac	ctcgtgatcc	gcctgcctca	3660
gcgcccggcc	aagagtgggt	tttaattggg	aatgaacacg	aaagtgtccc	atggagcttt	3720
ctaaaagt	gagcccacat	ctcatgtcaa	ctaaatcaga	atcttttagt	ttggctccta	3780
actatatgta	ctttaaaaac	ctctgtgggt	tggttttgat	atggctccct	gattatgttc	3840
ttctactaat	acatttttag	cagttacatc	ctttagtgtc	ttttcccat	actatagaaa	3900
tcttagaaaa	ccatagctat	tagcatcata	ttttagtgtg	caatttttaa	gagaccaggc	3960
ttattgtttt	tgtttttggt	tttgtttggc	aaaaagggtc	cattacctat	ttttcttgtt	4020
agagatgaca	gagtagtgat	atttctcaaa	tgaaagtgtg	gattttcatc	tagaaaaaat	4080
atttttgaaa	gcttttatgt	aataaaagaa	gcattaaaaa	gtatttctgg	aaatgttatc	4140
aattattctt	gaaagtagac	tgggttaatt	tgcttgtgtt	tactttgggt	aaagggtgaaa	4200
aatgaagttt	ctttgggtgg	agaaggcttt	ctcccagagg	atgggaagtgg	ccgcatttgtt	4260
gggtgttcagg	acttgctgga	tcaggagtct	gtgtgtgtgg	ccacagcctc	tggagacgtc	4320
atactctgca	gtctcagcac	acaacaggta	agtgggaagac	tccagtgagg	ggggagtctc	4380
aagcatcctc	aaatagggtta	cttgctattt	gtggaagt	tcaaatcagt	agccataata	4440
gttacacttt	tgctaattaa	tttttgcatt	atatatttct	ttattttaaa	aattgttaac	4500
atggctttat	attatgttta	agatttctct	aaactgtagt	tttgtctgct	gcatctatta	4560
atcagagtga	tcagaatgtt	ccaaatgaga	atatattttt	ttaaaagtta	aaactgggcta	4620
ttcttatgtg	gtgtagatca	cctcttatca	gaccctcatc	ttgagttgca	acctttgttt	4680
ctcaatttag	gaagtctttg	tttatctgac	ttagattttc	tgttatgaat	gttgattggc	4740
taaatttaga	gtccctgaag	tctaggcact	aaagtaaata	cattgtcatt	acctgcacat	4800
gtgatgactg	ccagtagagc	tagacttcaa	gcaattgtct	ctttctctac	tttagtgtat	4860
agttgagttt	ctgatttcta	tccctaccct	cttaacagca	agggtttcaa	attacacttg	4920
gctgattctt	taaatcttct	tccattactt	cattagttgt	gatctcctta	acattgatta	4980
tgctacagaa	gttagagtat	tactaatagt	aggataatga	tagcagctta	catttattaa	5040
ctatcatgtg	cctggcactt	tttaaagtgc	ttttcatgca	aatttattta	atcttcacca	5100
tgaccttatg	cagtaggttg	ttgtttccta	ttcttcagaa	gaggcagtta	aggcacagag	5160
tgcttaagta	attagaccag	ggtcacacag	taatcaaatg	gggtttgacc	ctagcagtct	5220
aaatctggca	cctctgctct	taaccattcc	atttagtaca	atcataaacc	tttacttgca	5280
gttcatgggtg	ggaaatatca	aacttgtcat	atacagcttg	tttttttttc	gtatttgaaa	5340
gatagatgct	tttactttcc	aaacattttg	tagcattgtt	tcttggttac	tgagctcttc	5400
cagtctattt	atcttcattt	aatgggtgctg	attctgccct	ttagtggctt	ctcaattgtc	5460
tgaaggtag	agccactat	tgtgccttat	aagccccctt	cactatctgt	tccccacatt	5520
cttttttagc	ctcatccccc	catgttccct	gtgtgtactg	aaaccttatg	ttttagttgc	5580
agctgatttt	taactgctct	tttttctggc	ttgtgtcctc	tacactgtgt	tttcttcttg	5640
gtctctcttt	cctgtcctta	ttaccactct	ttgaaacacg	tcagaaaaac	tttttctgga	5700
ctttgggcca	cttgtcattc	cctgtgctga	gacgcatttt	gctttccaga	gatcttggtc	5760
attgctgtta	tcctctgtag	ggtcttcttt	tatctccctc	gtgagacagc	tctgggaaga	5820
aaaagataat	tatttcta	ccctgtgcct	aataacaggt	ctattctctt	gatatccatt	5880
actgaagaaa	tgtttgttga	gtaagtcttt	gttttaattt	ttaaaataaa	atttttaatt	5940
tttatgagta	catagtaggt	acatatattt	atgggctaca	tgagatgttc	tgatacaggc	6000
atgcagtga	aaataaccac	atcatggaga	ataggatatc	catcccatca	agcgtttatc	6060
ctttgtgtta	caaacaatcc	aattacagtc	ttttagttat	tttaaatgt	gcaattactg	6120
ttgactgtag	ttaccttggt	gtgctatcaa	atagcaggtc	ttattttattc	tatttttttt	6180

tgtacctatt	aaccatccca	acttccctca	gccccctact	acccttccca	gcctctggta	6240
accatccttg	tactctctgt	gtccgtgagt	tcaattgttt	tgatttttag	atcgcacaaa	6300
taagtgaaga	catgtgatgt	ttgtcttttt	gtgtctgggt	tatttcactt	aatgtaatca	6360
tctccagttc	catctatggt	gttgcagatg	acaggatctt	attctttttt	tatggctgaa	6420
tagtactcca	ttgtgtatag	taccacaatt	tctttatcca	gtcatccatt	gatggacact	6480
taggttgctt	ccaaatctta	gctattgtga	acagagctgc	aacaaacatg	agagtgcaga	6540
tatctcttcc	atatactgat	gtcttttcgt	tttgtttttt	taattgtttt	gattgaagtt	6600
gcagtcagtt	tttactgaga	tgctagtgtt	tgaatctctc	ttttcaattt	tctctgtctc	6660
agctggagtg	tggtgggagt	gtagccagtg	gtatctctgt	tatgagttgg	agtcctgacc	6720
aagagctggg	gcttcttgcc	acaggtaagc	ttgttactgg	tgccctactg	gcttttttaa	6780
aacattattc	cagatgtctt	acaggcttca	tcagctttag	gctgcttgaa	tttcaaaaaa	6840
tttctttgaa	ccagtataat	accaattatg	aaccagtata	ataccaatta	tgtatgtgtg	6900
tgtgtatata	tataaaaac	gtagagtgat	tttttttttg	tgactgaagt	tttgcctctt	6960
agtctatcat	tataaaaagt	tgtttcatgt	aactttttta	gtctttggga	gtaagaaaca	7020
aagtcataaa	acttggggag	gctgctaagt	ccccagttag	agttaaaaaa	gtcagcaata	7080
tgtattttta	cttattctaa	gagttgctgt	atggacacat	tctaaaagcc	cttcttgggt	7140
tctgttgctg	tttttccctt	ttaagtctca	tcattccaga	tgagtttagt	aaaccagctc	7200
cactgatgac	atttatattt	agaggtatct	tggggacaag	gagtgttgaa	gttagtggag	7260
gagggctttg	tggactttta	agttcaactg	tacacacatt	aatagctgag	cataagcacc	7320
aggtgactta	tctagggaaa	gctttttggg	gttttttgtc	attgttgttt	ttttaagtca	7380
aagcattttg	gatgaattct	gtctgctctg	ttcagactaa	ctccagctcc	ttagcttaca	7440
tgcccatatg	tacttaggaa	tggcaaattt	gttacaatga	aacaaaatca	tttttgtttg	7500
tgtttctcta	aggtcaacag	accctgatta	tgatgacaaa	agatttttag	ccaatcctgg	7560
agcagcagat	ccatcaggat	gattttgggt	aaagtaagta	tagctttgtg	caatattttg	7620
tgacctacgt	ttcttcccat	ttttgaccat	ttccttgctc	actaatagcc	atgtcattag	7680
gccaaagaac	tgtaaaagt	aaacccccag	ctattaaatg	tctattagcc	cagttccctc	7740
agcccatccc	aaatcttaaa	aggcctactg	atgcctctcc	aggtctgagg	gtttaaggct	7800
acttagatag	ttattaccca	aaccctagga	aagctttagg	ctgggctttc	agtgaagggt	7860
actgtacaag	gtagtatttc	tgggatacag	ttttagggag	aagaaaagaa	gaaagatgga	7920
atagaaggct	ggtttttggt	actacgatta	gatccaatct	gcatttccat	gggaacaatc	7980
agattatatt	cttgctaaaa	tctagccaag	gtcatctggg	cattaaggct	gtgggggtat	8040
tgaagggcag	tgaggagaa	gagagacgtg	tattaagcat	aagctttggc	catcttgaag	8100
tcacaaagta	gctggcctga	ttgaagaggg	atggggaaga	agatgttcca	acttctgtta	8160
tggtctaact	tccgtccctc	ttgctccatc	aactctgaga	aatcatttag	acaacttcta	8220
cccatttatt	tacaaataat	gtatttgttc	agaaataatt	ttggagggtc	gggcacagtg	8280
gctcatgcct	gtaatcccag	cacttttgga	ggatgaggca	ggaggattgc	ttgagcccag	8340
gagtttgata	ctagcctagg	caacgtaggg	agacccagca	tctacaaaga	atttaaaaaa	8400
tagctgggct	tggtggatc	agcacagtaa	tgacatgatg	tgagggtact	ggggtagcat	8460
aaggggaagg	aacgagtaac	tagagaggga	tgattttatt	cccctaggag	gccaacttga	8520
gctgagtctc	agctgaattg	gtgttgggta	ggtgagggat	aaggggtggg	agtagtcagc	8580
tgaattggta	ttgggcagggt	gagggataag	ggtttgaggt	agttagctga	attgggtattg	8640
ggtagggtgag	ggataagggt	ggggaacagt	ccaagcaagt	gaatgtgtcc	atttcaagtg	8700
tccatttcaa	gggagggtta	tttcatagaa	acattgtggg	ttactcaggg	aactgtgagt	8760
aattcagcat	tgtctgaagt	gcagaatgtg	agtgtagaat	gaaataaaatg	gaacagattt	8820
gattgagttt	gtagtaggga	atatggacat	tgagttatag	ttgatcagcc	attacaagtt	8880
ttgatgataa	gaggtttaaa	gagatttatt	taatagaaag	atggctcgtg	atggcatatt	8940
tttgttggtt	ttgtgtgtgg	agaggggaaga	gatgagaggc	aggggtgatca	ggtaggagggt	9000
tgctacagga	atccagatga	aagataagga	aggtttgtgt	ggggctagaa	gcaggaaatca	9060
ttcaggaata	aacttgattc	acaatgagga	tgggagtaca	tttttttagaa	ttagctggga	9120
aactttttta	gaatatatgt	gcatgattcc	ccttctgccc	taggccagtt	tgagaaatac	9180
caatttagaa	agtgaataaa	ataggctttg	cgtatgtaag	gtgaataaga	aaaagttagg	9240
caggactcca	gccagaacct	cagggtgttg	gaataaagat	gccagtaaca	gggaagatgg	9300
agaagtgctg	gtctgtaagg	ggtgggtggg	gagatctgtt	ttggattttgt	tgaaggacca	9360
tatgtgattg	ccatgtggag	tatgcaaata	taaggctgaa	gctcaggaga	ggccagagct	9420
atggactgag	agtagtgggt	atgtaggaaa	tcttgagagt	tttgggaaca	gatggactgt	9480
ctcagggagc	agatgctgta	caggaagagt	ctagaatcca	gggtggaact	ctggggcatc	9540
cagctttgag	gacagtcaga	gagagagtaa	cagcacacag	tatacttttg	gatgggaaag	9600
tgctctgggc	ctgggtgttc	ccactgactt	tttcacacaa	atcctaatagc	agtaaatcaa	9660
aggaaatgta	ggccaagtta	agatcttagg	tctcagaaat	gtgtttctca	gtacaaaaaa	9720
aaaaaaatca	ttctatggag	tgatgaatat	tttctctcta	tcctgggggtc	agtagacttg	9780
ttctgaaaaa	gcttaggtca	tgaatatgtt	cagctttgca	ggctgtatga	tctgtgttgc	9840
agctgctcaa	ttctaattgt	gaggtgtgaa	agttatacat	gatacataag	cacatctatg	9900
ttccagtaaa	cgtttggttg	taaaagcaga	tgtaggctgt	agttttgcaa	atccctgctg	9960
taaccccatc	atttcttgtc	ttccattgga	aaagttctct	ttcttcattc	cttgggtcctt	10020
aatctttctg	tggaaacttg	cagatagaag	cctgggggtt	tgcaccagga	tagtcaactac	10080

catttgtagc	cagcagcaat	tgaggtagctg	tagcacttg	atgtgagcag	acaggaaatg	10140
gtcatatgga	cccataattt	ataggaattg	caaacagccc	tgcttcatca	gaatcagaat	10200
caatggcagg	aggaaagtat	tgggtcctgg	attaggtgat	gttttcagga	ccatctttat	10260
tgtgcttctt	gcaaagtgtg	cctacctcca	ggaacagaag	gggtgtgttg	tttcagcaac	10320
tctgcctaata	agtttatata	agagaagtgt	tacgatctag	aaagaacccc	agtcagcctg	10380
gaaggcagaa	gacctgtgtt	ctactttttg	gctccaccat	tagggagggt	ctcaatctct	10440
aagtctatgt	gaggagctgt	tttgtgacct	gcagcccctc	tatcaccagt	gagagcttgc	10500
aatcagaatt	ttattcccag	ttctcatctt	gggtttttat	gttccggaca	tattttgtaa	10560
actctttatg	tttcattctt	cttacttata	aggtgagggt	gagatcgctg	acttgtgtca	10620
tcaaagaac	ttggaatatg	taagatggca	gtaaaatgct	ttccaaaata	aggaaggcca	10680
tttcaaattc	ttcaaagtca	ctgctgcata	taatatgaaa	tgggttttgt	ttgtttgttt	10740
tgagatgggg	gtctcgctgt	gttaccagg	ctagagagtg	cagtagtaca	atcagggtctc	10800
actgcagcct	tgaactcctg	ggttcaagtg	atcctcctac	tttagtctct	tgagtagctg	10860
ggaccacagg	tgtgtgccat	catgtccagc	ttattttgta	tactttttgt	agagatgggt	10920
gtctccctat	gttgcccagg	ctggctctga	actcctggac	tcaagtgatc	ctcctgcctc	10980
agctcccaa	agtgttggga	ctataggcat	gagccaccat	gcccagcctg	aaacataggt	11040
ttctcaaata	ttgactgtcg	gtcaatttat	tgagaggcgt	tagaggacct	gagtaattgc	11100
caatgactaa	cttcatgaag	aatagcagtg	aaactgtttt	tgtttcattt	catgtggcctt	11160
attagtgtgc	ttgccaattg	ttctgtaggc	aagtttatca	ctgttggaatg	gggtagggaag	11220
gagacacagt	tccatggatc	agaaggcaga	caagcagctt	ttcagatgca	aatggtaagt	11280
ttggtttgat	ggataaaaaag	ccttgactgg	aacaaatgta	agtttgccac	ccaccaggaa	11340
ctctttgggtg	tccacttaga	tgccagtaat	gaaagatctt	cttctgcttt	agtaaaactg	11400
cctagaacct	tcaggaaatg	aatccctcta	gaaagatcct	ttttttcctt	gttattgccca	11460
agttgctttg	tgatttattt	tcatagtagc	aaataattat	aaccaatatt	catcaccag	11520
tttaaaaaat	aaaacatcac	agacaaagga	aacccccctg	gtatcccgtc	ccgatgtccc	11580
tccccttctt	ctccagagag	agctgccatc	cttcattcac	atgcatgttc	tcatactttt	11640
cccataatag	tgtatattag	atatttttct	ttttctgttg	gatgaaactc	tttgttttcc	11700
ttactttctg	attggaaaaat	tctgaagacc	atataatgat	gtcttgatga	ctcaaggcag	11760
gacttttttaa	tcttctaata	taggcggggc	ggccccgtga	ggcagagggtg	tgtggacaca	11820
agaagagtgc	agactcttgg	ggcacctggg	gaagtagtgt	ccgtgtcaca	ttaaattcat	11880
ttaaactctt	atatttttat	ttaatttata	caatatgaat	atttttttaa	actatgaatt	11940
gaaaagtatt	acccttgagt	aaaattaatg	ccccagaagt	atgtgccata	tttaccctct	12000
ggcacactac	caagtacccc	caggggcatt	acagatctct	gttagaaaag	tacagattac	12060
attatcctca	taacatttag	aagctatgag	accttggcag	ggaagtttcc	taatgtttct	12120
gagcctcagt	attctctgta	aagtggacaa	cataatgtct	ccttacaagg	gttgagatgg	12180
gcaggtaata	gcataatata	aacagctatc	atagcatcag	cacagtgtag	gcactcaaat	12240
ggtagttgct	gctttttgtt	tagtagacaa	ataatttttg	aaacttttta	aagcgtagtt	12300
tttattttcaa	aacaacttta	ttgtgagtaa	aatatgcata	gtgggtctaa	tttaacattc	12360
tgaaagctat	tgacttatta	gaacagtaaa	ggattattag	agggcagaaa	catggagtaa	12420
gtactctgag	acacaacctt	gcttctttgg	gggtgatcca	ctacaactgc	ccagctttgg	12480
acaagtgggt	ttcatgttcc	cctgattttt	aagtgatttt	tttttttttt	ggcaggactt	12540
aaaagggtatc	cttgactaaa	caggaacttg	accaagtaaa	tagttgggtgc	aatttgaata	12600
ttcttttttg	ctataagcaa	caagtaaat	atggtagacg	tttctaagac	catatctttt	12660
cgattttaaaa	atgacacttt	actcatacat	gttatgacat	gggtaaacct	cataaagatt	12720
atgctaagtg	aaagaagcca	gtcataaaaag	atcacatata	atatgatccc	atttgtatga	12780
agtgccacga	aggggcaaat	ccacagaggc	agaaagtaga	gtagtgggtg	ggtagggctg	12840
tgggggtgggg	tgggggaaggg	gtgactgcta	atggatatgg	ggtttctttt	ggggatgatg	12900
aaaatgctca	aaatttagat	tatgggtgatg	gctattcaac	tttgtaaata	tactttaaaa	12960
acattgattc	ttaccactga	gtttaaacaa	ccaaaaaaaa	atcccaaggt	gcattgaatt	13020
gtgtactttca	aatgggtgaa	ccttaataat	atgtaaatta	tatcccagta	aagggtgttaa	13080
aaaatagtag	tttaaaggaa	tctatggtag	ttttgaaaat	aaggcagttt	tccatacttt	13140
gttaaactct	ggagaagatg	acacttttact	actggtacct	gctagagtaa	gacttatcta	13200
gtattaacaa	aattaggggt	tattaatggt	ataggatgat	ccaggtaatg	ggggaaaaaa	13260
accgagcatc	ctgttatcta	atgtactatc	cagtaaaact	ctctagcttt	ttttcatgaa	13320
cttttttctaa	aggcttttcta	gggcctcgct	ttggtttgaa	agttcacagc	tacccttcag	13380
aaaagaaaac	aaaaatccat	ggagtaggca	gatacaagta	ctcatgtgag	cataatttac	13440
tttgattttt	taagttgtgt	tattctagcc	ctcagcctgt	tccctgcctg	ggctctccta	13500
gtgcccagta	acactgattc	aagagggttg	atthagctgg	gcacagtggc	tgatgcctgc	13560
aatcccagca	ctttgggagg	ccaagttggg	cagatcacct	gaggtcagga	gttcaagacc	13620
agcatgtcca	acatgggtgaa	atcctatctc	tactaaaaat	acaaaaatta	gccaggcatg	13680
gtggcagatg	ctgttaactc	cagctacttg	agaagtagaag	gtagtagaat	cacttgatcc	13740
tgggaggcag	agggtgcggt	gagccaagat	tgtgccactg	cactccagcc	tgggccataa	13800
agcaagactc	cgtctcaaaa	aaaaaaaaaa	aaaaattggg	tgagagggag	gaattgagga	13860
ggataccaag	ggttgggcct	gaacaaatgg	aagcataatt	atatgtagaa	atttctatga	13920
gctactcttc	tagaatagat	gactcaataa	taccctgctt	gccatctacg	ttttctgtcc	13980

ttaattattt	ccagttctat	ttcatataat	gcctatttca	ggccttaacc	cttcagtaaa	14040
ggaggtttgg	tttctatacc	ctaggacagt	ttcattgaga	ataaattttg	ttaggctacc	14100
tatgtattcc	ctactgtgca	gactacagta	cagtactagc	agaattctta	ggctgttact	14160
agaatatgat	gatgaatgcc	cgggtggta	tctgtctccc	acccggtaga	gttggcttca	14220
ggatttgat	acacgtggcc	ctggaggaga	cgtttcttcc	cgatcatgctg	cagaatgaga	14280
acatttccat	gttttcgtca	ttgtctgctg	ctgcctttac	cacctctgtg	gctcctccct	14340
attcaccttg	ttcacatctt	aactcatctg	tgccctgttg	tgaagcttac	acaatatgta	14400
aacaaaactc	taccctgttg	gacaaaatgga	acacttgttt	ccttgttgta	gttacctgat	14460
aggttcctta	gctcattata	ttcaggatct	agatctgtag	ctcttttcct	cttttgctgt	14520
tctcagaggc	cacttttttt	tttttaaatg	ccgaaaggag	gattttgttt	gttttacatt	14580
tttttcttct	ttttgatgat	ttctgcgttc	taagaacca	cccttggaatg	gtttctgatt	14640
ctagaggcag	gctttcaaag	tagcttaaac	ctcttaaaaa	acatctgtat	ctagtggctt	14700
gaggcttggt	tgattctggg	atacttaagg	tccccagta	atattgggtg	ttgttcccct	14760
ttttagcatg	agtctgcttt	gccctgggat	gaccatagac	cacaagtta	ctggcggggg	14820
gatggacagt	ttttgctgt	gagtgttgtt	tgcccagaaa	caggatgga	aatatattgc	14880
agttaaacaa	caataaaaaa	tttttatctt	attaaaatta	aggaaaaatt	tctttctttt	14940
gctttgagta	gggtattaat	tatacatatg	aggcaaggat	gtgctgcttt	aaatgtgaaa	15000
tgaggttaga	gttaagaatt	agaagagtcc	tttgaggcca	tttggtccat	cctcctacct	15060
ggtggacaca	aatttgtaac	aaaattaatc	taattggcta	tgtaaaacca	tggcagtttt	15120
tatttgtaag	gaagggtgtt	gaatagttct	gaattgacaa	cttttatcat	aatgttttaa	15180
gtgtgtatgt	gtgtttgact	ccactcccgc	acaggggctc	ggaaggctcag	agtgtggaac	15240
cgagagtttg	ctttgcagtc	aaccagttag	cctgtggcag	gactgggacc	agccctggct	15300
tggaagttag	tggaagaaga	aaccttagag	aaattcttgg	aaccagagta	gagggtgggtg	15360
tacacatgga	tacagatgat	acagatgttt	gtgtaacaca	aaaggatttt	tacgtttctt	15420
catttggtta	taaggctgta	tctatctttg	tttcttcttt	tttttttttc	ttattccctg	15480
aagtcgtaat	tcaactcgaa	tagtagattt	tacgcttctt	cacagatttc	attgttccaa	15540
ggccgcata	attttgcatt	cctaaactctt	aaaaggctgt	ggttttaagg	cagggtatat	15600
atgaaggccat	gtacagagc	agaaaaatggt	gtttaagaag	gaaggcccag	tttgcaaggc	15660
tctgtggggc	aaatgggtgt	tttggtgaaa	ttagggaag	agcctccttc	cttggcacaa	15720
aattcctaca	gcagaggatc	tgcttgccaa	ggagcatgca	ggctggattc	agaccctgct	15780
ctttccttcc	attctcctcc	ttggcccagt	acccttgtgc	aggttacaat	ttgcctgtca	15840
tatgtggctg	cctgatttta	gatagaagat	gtatctcctc	tgtttcgggtg	atatctgttg	15900
tatgtagacc	tctgttttcc	caccagtatc	tgaatggat	tatatgatag	agcagaagag	15960
aaatgtattt	gaattaaaac	cctagagaca	aatatgaata	agatgaggca	attaagatgt	16020
tttcaacatt	tggtgaagtc	ttaaaaaaga	cctactggag	catagaatat	ttgctgaagt	16080
tgtataatgg	aaggagaaat	agattttgat	ttttaggaca	ttatacctgg	aatgggttag	16140
ataacttatt	atttttaaa	tcataccaaat	gcaatgtaaa	tatgtaagg	tttggtgggca	16200
aatggagcct	ctgtgtaaaa	caggaaaagg	cactctttcc	tctgggcaag	tacagtccca	16260
cagtgggatg	aaccgctcgc	cgagagacaa	gggacacatg	ggattttaaaa	cttccttgga	16320
taaagatatt	cattaattcg	ttcattcatt	cattcatgtt	tgctggaaaa	aaaactcttc	16380
tggattttat	ctattcttta	gttaggtgag	ctttcgatat	tgtaacactc	tgagtttgct	16440
ttaagaccct	caggcagttt	gattgcatct	acacaagata	aacccaacca	gcaggatatt	16500
gtgtttttg	agaaaaatgg	actccttcat	ggcaccttta	cacttccctt	ccttaaagat	16560
gaggttaagg	taagtgcctg	agtttgtttc	accctcgaat	gtagaggact	ttccatagct	16620
atagagggaa	tttttttttt	ttttttttga	gatggagttt	cattcttgtt	gcccagggtg	16680
gagtgcgata	gtgcaatctc	ggttcactgc	aacctccgcc	tcctagggtc	aagtgattct	16740
cctgcctcag	cctcccagat	agctgggatt	acaggcttgc	gccaccacag	ccagctaatt	16800
ttgtattttt	agtagagacg	gggttttctc	gtgttggtca	ggctgggtctc	aaacccctga	16860
cctcagggtga	tccacccgcc	tctgcctccc	aaagtgtctg	gattacaggc	gtgagccacc	16920
acgcctggcc	tatagagggg	atttatattt	gatattggata	tataaatagt	agcttttagag	16980
taaatagtaa	taaaaaatgg	ggcttcctag	aactgatttt	tatttaataa	aatattgttt	17040
ttccagtgat	tttgcaataa	atagcatttg	tccccacct	tagataaaac	agaagtagga	17100
aataaaaatg	ctagttttta	ttgtttatatt	tgacaaaagc	ataatttttc	cagtaatgaa	17160
gatgtttttc	atttataaca	tttaaatctt	aagtggtttg	tataaccatta	agattcttgc	17220
tgaagtgaga	acacatcaaa	tggtatctct	tggtaaaaatt	ttaaacatcc	taagttgaga	17280
gacgagttta	atgaactccc	atgtaactat	tactcacttt	cagtagatac	caacattttg	17340
caaaaactatt	ttcatcggtc	cgcaactctt	tgccctatac	atataatatac	ttacatatat	17400
ttttattttcc	tggagtttta	attctagaaa	tcatattttc	aatattttatt	tataacagtt	17460
aaggacattt	ttcttttacat	aaccataaatt	ctattattac	atcttatctc	tgtgttgtct	17520
aacaccagat	ccatattcca	gtttctctga	ttgtctaaaa	atgtcacctt	gtatttggtt	17580
agttttctta	agtctctttt	aatcttttaag	cataatgtat	ttcttttttt	taagtcctct	17640
acataataat	gacatatttt	acagatttgt	ttaatgcctc	tgtaggttag	tgattttacag	17700
ctagggatga	gctcaggtag	tgggattatt	tgatttgaga	gaggaaatac	agctattata	17760
aagatttgga	agtaaatcca	taactgaaag	ccaatgacag	atcttttttc	ccttctaggt	17820
aaatgacttg	ctctggaatg	cagatttcctc	tgtgcttgca	gtctggctgg	aagaccttca	17880

gagagaagaa	agctccattc	cgaaaacctg	tggttaagaca	gctgtagtac	cccagccttc	17940
tgccccataa	aacgtagttg	aaagtagaca	ggtatgggat	ttccttcac	ccttctactt	18000
agtcccttag	tagaatcaaa	gatgctgaag	tggttaggtg	gaaatggggg	tggttaggtt	18060
ttgattgatt	gtggatttca	gtcatgtatt	ggttgggggt	ctctagagaa	acaaataata	18120
catatatata	attcgtccct	cagtattctc	gggggattag	ttctaggatt	gcccatggac	18180
gccaaaatcc	acacatggtc	aagtcctgca	gtcaaccctg	cagaacactc	agatatgaaa	18240
agtcagcctt	ttgtatactt	gggttttgca	ttcctcaagt	accatatttt	tgatgtgcgt	18300
ttggttgctg	gtatagaatc	cacaatatga	agggccgact	gtattcattg	aaaaaaatc	18360
gaatataaat	ggacctgtgt	agttcaagcc	tgtgtgttgc	aagggtcagc	tgtacttaca	18420
tagagagacg	gtgagagagg	gaataggggt	gggcgggagg	gagagagagt	aatagagtgt	18480
ggatagattt	actttaaaag	attagctaatt	gtaggggatg	gcaagtttga	aatttgtggg	18540
ggcaggttgg	caggctggaa	attcaggtaa	gaattgatgt	tgctgtcttg	agtatgaaat	18600
ctgtagggca	ggctggaaac	ttagggagga	tttctgttac	agccttaagg	cagaatttct	18660
tcttttctgc	gaagcctcag	tttttgcttt	taaggctctc	agctgaatga	atgggacctt	18720
cccacattat	ggggaataat	ctgctttcct	tatagtcagc	cgattataaa	tattaatcac	18780
atctacagaa	taccttcaca	gcaacatctg	gagtttagca	gatagctggg	tgccatagcc	18840
tagccaactt	gacacaataa	aattaactgt	tgtaagtcat	cacgtgcttt	ccctagtgc	18900
tggtattacc	acagaaaaaa	cactaaccaa	aggaattctg	tggaactgaa	agaagattta	18960
gattaagcgt	aaaagtaaga	atatttttat	agcttttaaa	atgtataagt	gtgtggtttt	19020
aagtattaaa	taatacttga	aaatgttaga	aaataagatg	agaaaaaaat	ctcatagtct	19080
taccacttcg	taataatcac	tattcaaatt	ttcttgcttt	ctagggtttt	catgtatata	19140
tctcagtata	gctatcatct	tgtttttggt	aaaagtgtag	taggtatggg	ccaggtgcgg	19200
tggtcatgct	actttggggg	cccagcactt	tggaaggccg	aggcgggagg	atcacgaggt	19260
caggagatcg	agaccgtcct	ggctaacacg	gtgtaacccc	atctctacta	aaaatacaaa	19320
aaattagctg	ggcgtgggtg	caggcgccctg	tagtcccagc	tactcaggag	gctgaggcag	19380
gagaatgggt	tgaacctgga	ggaggcggag	cttgcaagtga	atggagatcg	tgccactgca	19440
tccagcctt	ggcgacagag	tgagactgtc	tcaaaacaaa	acaaaaaaa	gtgtagggtg	19500
gatacatctg	cattctttta	aattgctgta	taatactcgt	ttattctcgt	tcattaaatc	19560
tcagtctgtt	agacattttac	agttttgtca	tttctcatta	ttgtaaacag	caatgcatgg	19620
tacatttttg	ttcataaaatc	tttttacttg	attattttct	aagtagcttt	caaaactctt	19680
aatcagtaga	accccccccc	tttttttttt	tttttgagga	cggagtctct	ctctttcccc	19740
caggctggag	tgcatgggcc	cgatctcggt	cactgcaagc	tctgcctccc	gggttctact	19800
cattttctct	cctcagcttc	ccgagttagct	gggtctacag	gcgcccgcga	ccaagcctgg	19860
ctaatttttt	gtattttttg	tagaggcagg	gtttcaccgc	gttagccagg	atgggtctcga	19920
tctccatctc	gtgatctgcc	cgtctcggcc	tcccaaagtg	ctgggattac	aggcgtgagc	19980
caccgtgccc	ggcctcagta	gaaccctttt	aactgcaatg	ttaagaaaact	cattattcat	20040
tcaacacaa	agttcttaac	cctggccaca	cctttagaaa	aaaaatgata	ttcaggcttc	20100
atctaagagt	tcagttcagt	gtgttggaat	ggagattata	cgtaagtatt	taattaaaaa	20160
ccaaaagccc	ccaagtgtat	ttaaacagcc	gcagttgaga	accaccgatt	aaccagtgtg	20220
tcaagggatg	gcactgtgat	atgctgagca	taaaaatatt	gcacaggatg	aaaccctgtc	20280
tctactaaaa	atgcaaaaat	tagtccggcg	tggtggtgcg	cgctgttagt	cctagctact	20340
cgggaggctg	agacaaggga	atcgcttgaa	ctgggaggca	gaggttgccg	tgagccgaga	20400
ttgagccact	gcactccagc	atgggtgaca	gagtgaagct	ccatctcaaa	aacatgtata	20460
tatatatata	cacacacaca	cacattgcac	aagaacagcc	acaacatctg	tgctcacaga	20520
acatcagcat	gtggtctaac	ttcaaagtgt	tgtaataatg	cggtttgaga	ctagggttatg	20580
tttgctgtga	tcactaagtt	aagcattagt	gagcaaggag	attgagaaaa	tccttaatat	20640
aaataatatt	tcttaatata	actataattc	ctaataatac	taagggtctta	atttatatgt	20700
catctgttta	gtaaagggtg	gttttgccat	gattaagtct	tgcttgctta	atagatgttg	20760
gaaggataat	ttcatgctta	tcttctttgg	acagctgaat	caggattaat	accagatag	20820
ccttgaacat	aagtgtctgc	aaagcacctg	aaagaaaata	agcatcttaa	gccccatata	20880
acacaatgat	gctagtctag	atcttggtat	aagtgtttta	atacttttac	tctaattgcc	20940
aagttatctt	cttcctaaat	cttcattgaga	aaaccacta	aaagaatgct	ttttcctggg	21000
agccttccat	tgtgatcata	aagtgttgaa	gtaaagttga	aaataaacat	gtgggcccagg	21060
cacggtggct	caggcctgta	atctcagcac	tttggggagg	cgaggcaggc	ggatcacaa	21120
gtcaggagat	caagcacaac	ctggctaaca	cggtgaaacc	atgtttctac	taaaaataca	21180
aaaaaaaaaa	attagccggg	tggtggtggtg	ggcgctgta	gtcctagcta	ctcgagaggc	21240
tgaggcagga	gaatggcatg	aaaccgggag	atggagcttg	cagtgaagccg	agattgcgcc	21300
actgcactcc	agcctggccg	gcagagcgag	actctgtgtc	aataaaaaaa	aaaaaaaaaac	21360
gaaaataaac	atatgaataa	aagttaaaaa	tagaaaaaaa	acaagaaaat	aaacatatat	21420
ttctgacctt	attgattctt	gatattttat	ctgcatggaa	agctattttt	tggcagttat	21480
tattgttctt	atttttagaga	cgaggctgag	cagggaagggt	cctttgaaaa	agaaaagatt	21540
gcccttgaa	ccctctggca	agtgggatga	agtctgcttc	ccagcctcta	acggccttct	21600
tttcattttc	ccttgacagt	cagctctgga	ctgttgaaaa	ctatcactgg	tatctcaagc	21660
aaagtttatc	cttcagcacc	tgtgggaaga	gcaagattgt	gtctctgatg	tggggacctg	21720
tgaccccata	ccggctgcat	gttctctgtc	agggctggca	ttacctcgcc	tatgattggc	21780

actggacgac	tgaccggagc	gtgggagata	attcaagtga	cttgtccaat	gtggctgtca	21840
ttgatggaag	taagctcctg	ggaagtgtgt	ccatgagcct	gcaaggggtc	ctgagcctag	21900
ggcctgcaga	tgtggtggtt	tgactggaac	agtggggaat	ctttatttgt	tttggctgtt	21960
tgggttacct	gtttttttat	tgaatgggat	ataagggtgg	gtatgttctc	tcctgagaac	22020
cattgtcccc	cctcccccac	cagtttccctg	ttatactgca	tctgtggcct	tcacacgttt	22080
acttgcctgg	cctttgaaga	cactgaaaac	tttgactcta	ggtagagagg	atgacaacag	22140
tacagtcttg	tggtattggg	tgtgttagct	ttatctgttt	gccctgacac	agatttataa	22200
ttgaccctta	taccacccca	cttgtgttgc	tttgtttcct	gatacaaatg	cttgctgata	22260
tatacctctc	cagtatgttc	agttcatgca	taaacgtttg	cctaatatga	agattaggtt	22320
tatattttat	aatgaggtag	aagggttttt	taggggggtg	ggtagggaag	gcaagactga	22380
agagtgaagt	agtcacctta	atgaatagtt	tcattgctga	tatgaaaggg	agcactggct	22440
tctaagattg	taatgtgagg	tgatatttaa	ttcatattct	gtgtaataat	ctacataata	22500
ctgattttat	agtcattgat	tctatataga	gaacttaatc	agatctgctg	tattaccaa	22560
tccacacata	ggaaagtgtc	ttaaggattt	tgaaagtatt	aattcccctg	gtttagtgtg	22620
gcttggttgc	aggcccaggt	ttaaagctag	aggtctgacc	tcttggcctt	tttgccttag	22680
tccctggcac	ctgaaactcc	aggtactgag	atggactccc	ctaggcctag	aggtgacaat	22740
agccaattat	ggacagaacc	catgacattt	ccccatccca	cactgttttt	agacttgctt	22800
ctgagaaaaa	cattgaaagt	tatttttttt	tgaattgcc	ttattgttta	gatatactgt	22860
gatgttcaga	tggccttatct	tacaaattga	atatccctag	gtctaactct	cttctttctt	22920
tttacttgca	gacaggtgtg	tggtgacagt	cttccggcag	actgtgggtc	cgccctcccat	22980
gtgcacctac	caactgtctg	tcccacaccc	tggaatcaa	gtcacattct	tagcacaccc	23040
tcaaaagagt	aatgaccttg	ctgttctaga	tgccagttaac	cagattttctg	tttataaaatg	23100
tggtatgtta	taaaactttt	gccaagatgt	tctgaatcaa	gtcccttcta	ctcctacata	23160
aaagcaaat	atagtttggg	gttgccatag	gtctagtgtt	tctcaaaatt	tttaagtctg	23220
cagttgatata	cattatcatt	atgatattta	attgccttgg	gtttttgttt	tttttttttt	23280
taatcctata	ctggtttgta	cgagccattc	cttttccctt	actgacttga	agagtcagtt	23340
atttaagaat	aacattggac	tctggaata	acatagtatg	ttatacatgt	ttaacatgtt	23400
ttactctttt	catagccttt	acacatattt	tcagtgtatc	tcatccctcc	taggagctgt	23460
gtcagagatg	gggttttccct	cttttgtaga	tgagggaaca	cagtgtcaga	ggttttgtaa	23520
tttgtttgaa	caagaatgga	caaggacctc	aacacaggtg	ttctagctcc	taatccactt	23580
gtcctgccac	agccccattg	ctgtcagttc	ttcattactt	tcttgatgtg	ctggagaatc	23640
tgaattttgt	ttttactttg	gagttctgtg	gttatgtcat	aaattctgct	ggcatatggc	23700
agtgttagcc	tgtttttcaa	atatcttttt	aattctcaga	aaaagcctag	atagttgcca	23760
agagagaata	atcaaaatta	attaatttaa	atgggaagtc	cttactttca	tatcagcttt	23820
tctgttaagt	cagcagccca	ctgtgtacat	ggatcctatc	tggtatgtatc	accagtttct	23880
ctgattatag	tttcagtgtg	taaaatgctg	ttacagtcct	ccttaaaactt	ttcaaaatag	23940
ctttaaaaaa	aagtgcaaat	atgttcattg	tcaaggcaaa	aagaatcaga	tgtaaagcttt	24000
tgtgggactt	aactgtatga	tgctaagtga	actttatgtc	actttatgat	gtatggtagt	24060
ttttgttctg	cattcactta	aaaaatagct	ttatatcatt	catctattta	aagtgtacaa	24120
ttcaatgggt	tatatgtgtg	tgtatgaata	tatatacata	tgtatatgta	tatatatgta	24180
tattcacaga	gttgtagacg	catcaccacg	atcaatttta	ggacgttttt	atctcctcag	24240
aatgaaaccc	tgtaccaccc	tgcattcatt	ttacttgaga	gaaaactccc	tgtgatgaga	24300
taggacaggt	tgagagctcc	acttttgaaa	gattgttcgg	catcaatatg	tgggggttggc	24360
cataggtcag	aggcacctgg	aggcagagat	tctagttagg	agaagctgtt	gtcaagtgtc	24420
caggcaggag	ctagcaagag	cttgagccag	agcagtgttc	atagaaatgg	aaagaagaga	24480
aagatcataa	caaatccatg	aagtaaaaac	cctgagaagt	taaagaaccc	actgggggaga	24540
gtttggatat	aagagaatct	ggaaaaagag	atcttggaact	ggaacaggtc	agggctccgt	24600
gccaagtgg	aagggaatt	aagaacttgg	agtcaagtgg	tagacatttg	agtgggtgtg	24660
agacaagttc	gttgccaag	ttttcaaaga	tggtgtttga	tgcacccctga	gtatcactcc	24720
tttttcccc	tcattgtctt	ttgattgttt	attatatgcc	aggctttttt	ctagtacttg	24780
gcttgttgta	ctagaaaact	agttgtactt	tgtctacaac	ttgttgttct	aggtgtagac	24840
aaaagatatc	aattaaatat	gatctatcag	atggcaagtg	ctgtggagaa	aaattaagca	24900
aaataagggg	tagggagagc	ttaaggataa	gggtttacag	ggggaagggtg	tctttcctat	24960
ttagtgtgat	cccaaaggcc	tctctgtgaa	ggtgacattg	aagcagagac	ctggtgagaa	25020
tcacagtggg	agccacgcag	acatctgggg	taagagcgct	ccaagcattc	tatgcttgaa	25080
ggcaagaag	aaaaaagaaa	gagcgttcca	agcagagtaa	aaagcaacca	ccgaagtgcc	25140
tgttgtgttt	aggaaatagc	caggaggcca	gggtggctgc	agcagagcaa	aggaggggaa	25200
ggtggtgggt	gagttcagag	tggtgatggg	aatctgctct	tgtagggcct	tgcggtcttt	25260
actccgagtg	agataggagc	caccagaggg	cttagaacag	aggagtgcag	tgttctggct	25320
gaatttttta	aaggcttgca	ttggctgtcg	tgcagtgaat	aaactggatg	aagaatagaa	25380
agaaaatgtc	ttttaagcag	gtgcttagga	ctttggagaa	tttgaggata	ttgagagggtg	25440
gttgaagaca	gtggaggaaa	ttgtccacag	cactgggctg	agagggtagc	cccttcacct	25500
ggtcttgctg	agatgtggcc	tttgtcaggg	aagattatga	ctgatgtgtt	cttaagagga	25560
aagcagagat	tttaaggagg	ttgagatgtg	attattttct	agattgctgt	ttgccttcta	25620
gaactcatta	attgcagaca	ccatccccct	agtattaggt	gaaatcttat	aattttacgat	25680

gataatattt	gcatttttgt	tttccaggtg	attgtccaag	tgctgaccct	acagtgaaac	25740
tgggagctgt	gggtggaagt	ggattttaaag	tttgcccttag	aactcctcat	ttggaaaaga	25800
gatacaagta	ggttcttaat	tatcttgggc	ttctgggaac	agaatcagcc	agcatgcagt	25860
cctaaattca	gccatctgat	aacagttcta	tgctgttg	tgagtggaac	aagaaataaa	25920
gacaacaccc	agggccctgac	tttcggatct	gattggagaa	gccagtcagt	tagtttgtct	25980
gaatgccata	taatttgata	ggtagcagga	gagcatgagt	tgtaagccag	cctaggacct	26040
actcccaata	gcgcttggtt	ctccaggaaa	aatcatgtgg	gaaagatgga	gatgacaatg	26100
ataaggcgga	gctgcattct	cttacataaa	tggggatgta	tgggttggtt	acatggatga	26160
cctaattgcag	cctctgtctt	tgctccatcc	cagaatctag	aacttctggg	tgctgtgctt	26220
tgaggctcct	gggatggaaa	tcagaatgca	ttcttccatt	gaaacagtat	tgtaaacaat	26280
tggatgttat	tgaatacctc	aggtacacta	taggcatttg	caaaatgacc	tagaaaaccaa	26340
attataatgc	cacatctgtg	agagaacttt	tttaaaaagt	accacttatt	gagtacttac	26400
agattaaaaa	aacaaagtgt	agaggttagg	taacttacct	aaggctcatg	acctggtaac	26460
tagagaatttt	agggtttgat	tctattctgt	ttgataagtc	catgttcttc	attactaaac	26520
tactctgcct	ccagggaaca	tttattgtta	gattaataga	aataattaac	tgagtacaac	26580
aaatagcaga	atttaataaa	taatgtttct	taaataatag	tgataatatt	aataaataca	26640
gcagaagtgt	tgaaaactctg	tatgattttg	aggctgcctg	tataatgctt	agtagttttt	26700
aaagagcatt	tacatgcatt	atttcacttc	atagacttga	aaccactaga	gtagagatag	26760
aggacaaatt	agaaagtatg	aggcagttta	gaatatagtt	tcatttataaa	aaaattgatg	26820
gggataatgc	caattcgtct	gagatttcac	agaagacatg	agtactcatc	gtgatcttgg	26880
ggaagggata	ggtttggggg	tggcaaaaga	ttgggaacat	tgggtctggt	ggggaagaaa	26940
gtgtcagtga	aaaccagagg	tgggaactgat	ttagtgtagg	atactctatg	tgaatgcaat	27000
ggagagcctg	agtcggggga	gagatgtttg	aggaggaaga	tcaggctagt	gaccaacttc	27060
ttcagtggga	gctgcggatt	tgccacctga	tctaaaaggc	aggaagtagc	cattgtcggg	27120
tcctacgtga	ggtgacaaga	acagtgcgct	ggtcagggtg	ataaatgcta	ccaaagaatg	27180
cattagagac	atggagacca	tctctcaagc	tagtcagtca	gtttaatgtg	aggtgcttag	27240
gaaaggaccc	atttactg	aagtgcata	cctgccagag	cctggtttga	atgctggtaa	27300
gtcatggcag	tgaaaagct	ctggggttca	gactagggct	gactagggct	ggtaattttc	27360
ttgtgtagtc	agtttctca	agtgttctct	tcaaatttaa	agatttcagg	gtatgagaaa	27420
tttagggaaa	atataaaaac	gtattcttaa	gccagacaaa	gattaatttt	agattttgta	27480
gtatttggtg	gtatctcagg	ttttgtccct	ccaaataatt	aggagtggac	tgtatacaag	27540
atgcttcagt	cttccttcat	ccaggaacgt	ctcagtgggt	tttaagtttt	attcatgtct	27600
tggatatatt	tcaatatttt	caatagaatc	cagtttgaga	ataatgaaga	tcaagatgta	27660
aaccgcgtga	aactaggcct	tctcacttgg	attgaagaag	acgtcttctc	ggctgtaagc	27720
cacagtgagt	tcagccccg	gtctgtcatt	caccatttga	ctgcagcttc	ttctgagatg	27780
gatgaagagc	atggacagct	caatgtcagg	tattgcagtt	tttccctgta	ctccacatgt	27840
taagcaaattg	gagttagggt	tttgtctttt	atgagcatac	aacttttgac	ttctattgat	27900
caaggttgag	gagcagtagc	tttcttgtaa	gacacactta	acaagaagg	taagtctagt	27960
tatgagccat	gtcaaaaata	cagaccataaa	atatatacaa	aagtgggtgaa	aaataggata	28020
aatattagta	gatgaagcaa	cttttttaaag	atatgttaaa	tatttttaatt	tagcatctac	28080
ccacattttt	ccagcgtgat	tgttatatgt	tataattgat	tttaataact	gtcaagcata	28140
attagagtgg	ctaattctca	tgggctaatt	tgatgggaag	aaattttgta	taaatgcagt	28200
catgcgcata	tatgtgtgtg	tgtgtgtgtg	tgtgtgtgtg	tatacatacc	ttttctatgt	28260
ttagatacac	aaatacttga	catggtatta	cattgtcctg	tagtattctg	taaagtaaca	28320
tgctgtccag	gtttgtagcc	tggtagcaat	aggccatacc	ccataggcta	gggggtgtagt	28380
aggctacacc	acctagggtt	gtgtaagtac	tctatgatgt	ttgcacaatg	atgaaatcac	28440
ctaacaacac	atttctcaga	cgtatcccca	tcgttaaatg	atgcataatt	gcacatatat	28500
gctttgtttt	gatgtgggtg	cttcaaaaatg	cttcttccag	cctcctcttc	tatatatcct	28560
attttgtacc	tgactacatt	taccattaga	aagtctctat	tcttctttgc	tgaaatttca	28620
ctgttctctg	ggcctgagtt	ttgttttgat	tcctgactat	atcttcatta	tgtaaacagg	28680
ttcagttaat	gaatgctctt	ctgtgtaatg	taagccctgt	tgtatagttg	atagcatttt	28740
ctagccagtt	cccagaactc	cttgtttcca	gtgtcaatac	ttggcacctt	tgtccactga	28800
cactaatccc	cagattaatt	tgtaatataa	gccctactgg	tgagatttct	gagaaacggt	28860
gttgcaaaat	taggaacctt	tcctttatat	atatacatta	cataaattta	tagacataaa	28920
acattttaat	gcagtctatt	gctgctactc	tttgactcat	agtcctttcg	gatattttga	28980
aaaagccttt	tgttaacatg	tctaaatgca	gaatatgttc	tagaaaatag	tagcacttaa	29040
agtaagccat	tagattacct	tttgaaaagc	ggagcaattt	actaagtttc	tacttcttca	29100
gatttgaaat	tcttcatcat	tagcttgtag	aggcaaaagc	ttgatgcagt	catctcattt	29160
gctgtaaagg	aatgagaag	tcatttacag	tatatttcta	ctgctttgac	ttttatttct	29220
caaaaagact	gttttgttca	tataaaatat	taagtctttt	gaggactaca	aagtcctctg	29280
atttagttta	agctttactt	agctttatact	ttgtataaaa	tacttcttca	aatgctttgt	29340
ctgttttagc	ttactttatt	ctcataatac	ctctgtaaag	tatatgccat	ttgcaccatc	29400
attttacaga	tgagacaact	aagacatgga	gcagttaggt	aacttgccctg	agatcatgca	29460
ggtggagcca	ggatcaaatc	ccagcgagtc	tagctccaga	gtttgttctc	ttcttgacag	29520
ataatttatc	ctcacaatat	ttgaagcatt	tgtagaggaa	ttccctattg	ttataatggt	29580

tagttttttt	gtagattgggt	taaaaaacttt	gaattaaatg	ttagcattaa	catcatttgc	29640
ttttatcact	acttctttgt	ctcttttttct	tttttttaat	cactacctct	tcctcctctt	29700
ttgagaaatt	ctgcttccgt	ggctatgggtc	caagctactt	gagaagggtga	gggtgggagga	29760
tcacttgagc	ctaggagggt	gagattgctgg	tgagctgtga	ttgtgtcaac	tgcatttcaa	29820
cctgggcaac	agagcaagac	actgtccaaga	aaaaaaaaaaa	aaaatagtga	aatttttactt	29880
cgctccattg	actcagggaa	aaaatgtaat	ggtgataaca	aattcccttc	atctcattag	29940
tgaaaatcca	caattttcca	tcaatcgata	tgatagtgtg	agagatattg	agtgtgctca	30000
ttttcctaca	gaccagctgc	tttaactatt	ttaagcagac	agaaaatgata	ttggtaccat	30060
ccatgtctaa	tgaaggcaat	actttgtaat	aagtgtcagt	aagtgtggtc	cagaagagga	30120
atgatgactt	cacagtgtaa	acaactacct	tattgggttt	gtggaaaaatg	gtgtcatgta	30180
gcagatgtgg	ctttatctgg	gctttgggttt	ggagttagttt	tatctattca	tctaaccgtc	30240
tgtctctaag	tgtataagt	tgtgtgtgtg	tgtgtgtata	gtattgggtg	tgtatatatg	30300
tattttgtct	acattgtatt	gaagtaggta	gtgcagcatc	aaaaggaaat	tgttgatttt	30360
caaaatcagt	gaaaatgtcac	tattttttgag	aaaaatgggtc	tgttttacact	cccttctcct	30420
ttttttgtc	agttcatctg	cagcgggtgga	tggggtcata	atcagtctat	gttgcaattc	30480
caagaccaag	tcagttagat	tacagctggc	tgatggccag	atatitaaagt	acctttgggg	30540
tgagtatacaa	ggtgttagga	aagcatgtta	tgactttacat	agatgcttag	ttcttaagaa	30600
catgtacttg	tatcttgtca	gttcaatatt	gattgtcagg	tcttttaact	accctggaaa	30660
accctaagct	ttagagtggg	attggcaagt	gtattctact	cctgtttcct	cttttaatga	30720
actaacgtac	tcttaaaaaa	gtgattgatg	actatcgcag	ggacaaaaaa	cgaaacaccg	30780
catgttctca	ctcatagggtg	ggaactgaac	agtgagaaca	cttggacaca	ggaaggagaa	30840
catcacacac	ttgggctgtg	cggtgggtgg	gggaggggtg	agggatagca	ttaggagata	30900
tacctaattgt	aaatgacagt	ttaatgggtg	cagcacacca	acatggcaca	tgtatacata	30960
tgtaacaaac	ctgcacattg	tgcacatgta	ccctagaact	taaagtataa	taaaaatata	31020
tatataaata	aataatgcca	gcatttagaga	aaaaaagtga	ttgaaattgc	atggttaagt	31080
ttttagcaaa	tgttgatgtt	gatgggtttt	tgcaaaagagc	gcatcagcta	tttgtgaact	31140
agatctgtga	atcttgcaga	gtcaccttct	ctggctatta	aacctgggaa	gaactctggt	31200
ggattttcctg	ttcggtttcc	ttatccatgc	accagaccg	aattggccat	gattggagaa	31260
gaggtagggtg	aacacggagc	aggaaattta	cttaaagtag	ttaccagggg	actgatggca	31320
ttaagtagaa	agagcgtggg	ctttggaggt	ggacttgggt	ctccactaaa	tgccatagaca	31380
atagtgggaa	atgatctcac	tttcataagc	cacaccttat	tcatctataa	aatgggaaaa	31440
tcagtatctg	tctatcaggg	ttcagaagac	taaatgagat	aatatatgtg	attagcaacc	31500
ttttatccct	agttgtacaa	atcattcaaa	gttaatttta	tttagtaggg	gaaacagaaa	31560
tgtgatcttg	agaatagttt	tagtagattt	ttattcaaca	catactagaa	tgccataaat	31620
tgtgggtggat	ggtagaatgc	agtggctgga	aaacaaaacc	gcttgactaa	ttcctgctct	31680
tctggaaactt	gtgatctatt	aatttcaatg	taatgattcc	ctttgttggg	agtgtgatgg	31740
aaatggacag	agtatactgg	tagagaatac	tgagatgttt	gaggggtaat	ttgaggatgg	31800
tggctatgag	aatgggagtc	ctgcatctgg	tgttccagga	aggcctctcg	gaggcagta	31860
tgtgtgtgct	gagatgtgaa	gaaaaaagaag	gctctgtctc	caggcagaag	gaacaacaaa	31920
ctccttgagc	ttagcaagag	ctcatcttat	tcaagggact	ggatggaagt	attgtggctg	31980
gagctcagtg	acagtcatag	gagggaaattt	gggttcttta	attgaacaaa	gattagaaac	32040
ttcttgtgat	ttttaataac	agagtaatgt	gttctgcttc	atgggttgga	cagtgtattct	32100
ggctgcccag	aagagacttg	attggagagt	gacgagactg	gaatatggga	tcaacaccgg	32160
ttgagtggag	ttagtgaggg	gaaaaaaggag	atgggttcta	gatatgtgta	ggagatggag	32220
atgtcagggc	tcactgatgg	attggatggc	ttcacattcc	gttttgcact	ggaccagcca	32280
cgtcttaggt	atctatcttt	agtcctgatt	acaggaactt	aggtgtgaaa	tcatagggtg	32340
gtagaactat	gtgatagaaa	aggtaggttt	aactgatttg	agatagaatt	gcttgtgatt	32400
tcagttttat	ttctttgcag	gaatgtgtcc	ttggtctgac	tgacagggtg	cgctttttca	32460
tcaatgacat	tgaggatatca	aggcttgggt	tgggtgttga	tcctttttcac	agtgttagct	32520
ccgagtaatc	tagctagctt	tcacccatgc	ctctctggcc	ttctcttgca	ggttgctgta	32580
aatatcacgt	catttgcagt	atatgatgag	tttttattgt	tgacaaccca	ttcccatacc	32640
tgccagtgtt	tttgccctgag	ggatgcttca	tttaaaagta	agttttcaat	gtataaaaca	32700
gaaatgggtcc	cttctccaat	gtcttttgga	gtcttgatga	ctttttgaat	tcttcattta	32760
ttttggcttt	ttatcaagga	gtcctaggct	ggagaaaatc	tttagagtta	ttttacttag	32820
accctaactct	caacataata	tctcagttaa	atcattctgc	acttttagtaa	agacatccaa	32880
ggaaggggagt	tccttcctta	agcagcacat	tctaaagtta	aaaacttttc	aggaaatttt	32940
attatgtaac	tgatctaata	ttttattttgg	aattactatg	tagatcccca	atgttttacc	33000
ttctgtgtag	tcttttccca	ctgtgcccac	cctccactgt	acatctgcgc	tccatctagt	33060
ggtttgtagg	atattggctg	cattttgtct	tctgttccat	gccctatcta	tctctgtgtg	33120
tgtggcggtg	atgtgtgtgt	ggcgtgtatg	tgtgtgtggc	gtgtatgtgt	gtgtggcggt	33180
tatgtgtgtg	tggcggtgtg	gtgtgtgtgtg	ctgtgtgtgtg	tgtgtggcgt	gtatgtgtgt	33240
gtggcggtgta	tgtgtgtgtg	tgttcccttat	tctaaaaagc	caacttattt	tctttgcttc	33300
caacttggaa	ataggggaatc	tttctttcat	tgatatgatt	atagtacact	gataatgcta	33360
agaaaatagag	aagttgcccc	aattcttaac	tgtgtttctc	cacatcattt	gagaagctgt	33420
gtatgtgaat	gtgcatgagg	gctctgtaag	agagagggca	agttccaggg	atgagcgtgt	33480

tcacgagcag	ggctgatagt	cttgagggttc	agtgaggagag	ctaaggcaca	tggttgttat	33540
ttgttctctt	ctatttcaca	taatgtgtgc	ggtttcaatt	gcagttaatg	gagagtggct	33600
tggttgatga	attaaggcctt	attagttaat	gggtgtgtta	gcattacagg	ccggcctgag	33660
cagcaatcat	gtgtcccatg	gggaagtctt	gcggaaagt	gagaggggtt	cacggattgt	33720
cactgtttgtg	ccccaggaca	caaagcctgt	attacaggta	agctgggttt	tcagacaaga	33780
tagatagtct	gattgtcatt	cagccaagta	ccaagcataa	ttcttgcagg	ttgtatttta	33840
ggctttctta	ttctttgtat	cgtttattgt	aaacctttcc	ttgatagttt	tctgttagct	33900
ttattcaaag	gagtgttgat	acaggctgtg	accataaagg	tcaaagcgaa	acttttcttg	33960
aaagtcaaga	taaatataga	gaacaacaag	attctgctaa	aagtgtgctg	atttttagaga	34020
gttgtggtaa	ttctctgtga	agagttaggt	aaaatgggtg	atcctggcta	tttaaagtgt	34080
ttctacttaa	ttaaaaatgt	tactgcttta	atttatttaa	gatgccaaag	ggaaacttag	34140
aagttgttca	tcacgagacc	ctggtttttag	ctcagattcg	gaagtgggtg	gacaagtaag	34200
tgccattgta	ctgtttgcga	ctagttagct	tggtatttat	gtgtgaagac	aataagtatt	34260
ttattacaat	ttcgagaact	taaaattatg	aaaagccctc	attacctata	tcacaaatca	34320
gattcctaga	ggctcttttt	ttttttttta	actttttttac	tttaatgcag	tattttgtag	34380
tggaagtctc	tagcagaaag	aatcgtgaca	ctcatcatat	aaaggagggc	ttctcttaac	34440
ctgagggaaac	acatgtgggt	tttaggtggc	ctgtgaaccc	aggagatttg	tacacaccaa	34500
acctgtctt	tggtatttta	ttcaagtaga	aagcccacag	ctttcaatag	atttacagcg	34560
gggcctatga	cccagaaaag	cctgagctac	tctgtgaag	gaaatgactg	attttctgaa	34620
cctatttgga	ggaaactttg	tattgaaaag	atctatacta	atgttttgtt	taaaaagtag	34680
acctgaattc	catgatgatt	ttctttgttt	tttttttgag	acagagtctt	gctctgtcac	34740
ccaggctgga	gtacagtgcc	gcaatctcgg	cttactgcga	cctctgcctt	ctgggttcaa	34800
gcaatcctcc	cacttcagcc	tcccgcatag	ctaggattac	aggtgtgcac	cacgcctggc	34860
taattttttt	ttttgtattt	tcagtagaga	cagggtttca	ccatgttggc	caggctggtc	34920
tcaaactcct	gacctcaagt	gttctgcccc	cctcggcctc	ccaaagtgtc	aggattacag	34980
gtgtgaacca	ccgtgcccgg	gcttctgtaa	tgattttctg	ttgtatgtat	gtgaagatgt	35040
agttctcaga	cagtcattgat	gactaaaata	caccttttaa	gaaggtaaat	gaatgtggta	35100
cctgattttt	ttattctgta	atttcagagt	agaaatccag	tgatagtagc	ttggcatttg	35160
ggctgtaatc	tgattataac	tggtttgtat	cataatgaaa	atatgctggg	cccatggagc	35220
tcagtttttg	tgaatatcct	ttctattcct	tctctgtcct	ctcacagact	tatgtttaaa	35280
gaggcatttg	aatgcatgag	aaagctgaga	atcaatctca	atctgattta	tgatcataac	35340
cctaaggtaa	ctttctaagc	tgctatttac	cttagcttac	tttgtactta	aactaatatg	35400
atctgaacga	agatgttttg	tccttttttt	ggtaggtgtt	tcttggaaat	gtggaaacct	35460
tcattaaaca	gatagattct	gtgaatcata	ttaaacttgt	ttttacagaa	ttgaagtaag	35520
tattttgaat	aattcatgtg	tatcttttcc	atagttttct	ctcttcttgt	taaggaaatc	35580
aagcataaat	agctagagaa	gaaaaattcc	ttactgttca	tttttaaaaa	ttgtcataac	35640
tcttagatgc	cagttgggtt	tttgctcttt	tccgttcttt	ttaaaacagc	ctgttttaaa	35700
ctaatgctct	aaaacatgtc	attcagaatt	ttgattttac	ttgattttta	ggtatacata	35760
taaaactact	tgtttttctt	aggagactga	aatcaaatgg	catctttctc	tctgatgatc	35820
tttccctca	actttttaat	gaaacacttt	caaaatagag	aaaagttgag	agaattgtcc	35880
agtaagcaac	ctatatatac	cccacctgga	ttcgccagtt	tataattttc	tgtatacaca	35940
ttctcattct	ctataatctg	tccatccatc	attcatcttg	tttgtagaca	aattgctaag	36000
tgagtgtgag	acatcagtcg	actctaccac	ctgtactttt	ccttgtatat	cattaactag	36060
agggcattct	ttgtgtatgg	gttgggtttg	ttgtgttttt	tcagggtcata	tttatctaca	36120
gtgaaatgtc	caaatcttaa	gtgtgccact	tagtgagttt	tggaatgt	acacttcatg	36180
taacctgaac	ctctgtcaag	ttagagggca	tttactcctt	ttcagaaagc	tgcttcagat	36240
tcctttcaat	cagtcctgtg	cccattcccc	aggcaactac	tcttctgaat	tttttaccat	36300
aaatcagttt	tgctgttca	agaacttcac	ctaaatggaa	gcatacagta	ttactcttct	36360
gcataaagct	gttttcattc	agcatattgt	cttgagattc	atctgtgttt	ttatatgtat	36420
cactagttca	ttcttttttt	attgggtcag	agtattgccg	tggtgaaata	caccactatt	36480
tgcttattca	ttccctgtgt	gctggacatg	tggaattgtac	taccctgttt	ggggctaagt	36540
tgactaaaac	atctacaaac	atttgtataa	gtctttttgtg	gacatgtttt	atttctcaat	36600
atttttataa	ttcaactctt	ttccaaaagt	catttttatt	tatcatcatc	agcatgccag	36660
gtgtatgta	gtaatttgat	cgctgggcta	catgttctgt	tgatgaccat	tccatacaca	36720
cctgtttcta	gagaagaaga	tgtcacgaag	accatgtacc	ctgcaccagt	taccagcagt	36780
gtctacctgt	ccagggatcc	tgacgggaat	aaaatagacc	ttgtctgcga	tgctatgaga	36840
gcagtcatgg	agagcataaa	tcctcataag	tatgtatgct	gtcaccagggt	ggcatccttt	36900
gaaaaaccga	agtgtgtagt	tgctcctgtc	cagcctactt	acctttctca	ttctgggtgt	36960
cttcacttat	tacctcagat	actgcctatc	catacttaca	tctcatgtaa	agaagacaac	37020
cccagaactg	gaaattgtac	tgcaaaaagt	acacgagctt	caaggtagag	atccgctcac	37080
agagaaagtg	cttaagggtg	ccgtgactgc	tactagtctt	ctgcagggtga	caatcaccat	37140
gtcattgcca	caccacagat	ttaacatgtg	actttttagt	tgccatttta	agacccttgt	37200
cagttttttt	cagtgtgcc	ctctaaagca	tatataaaaag	tatcagaagt	atatattctt	37260
ctgatgtcca	gttctattga	gaaaaattta	ttgtcttttt	ggttatgttg	ttagggtctgt	37320
ggattttttc	cccaaatgat	tgtgttctgt	tttgttttct	aaacactggt	aggaaatgct	37380

ccctctgatc	ctgatgctgt	gagtgcgtgaa	gaggccttga	aatattttgct	gcatctggta	37440
gatgttaatg	aattatatga	tcatttctctt	ggcacctatg	acttttgattt	ggtcctcatg	37500
gtagctgaga	agtcacagaa	ggtagtggtg	gttcttactt	ttatgccatt	tggttcttgt	37560
ttatataatg	atagtgtgaa	accctgcttc	tggtagtga	gtagcttttc	tgctatcact	37620
ctgtgagtg	agggctggag	acagatctgt	gagtttctag	ggcccacatt	cctaagcccc	37680
tgtgcttatg	aaagtgtttt	gattgtgagg	ttgaagaagt	gaagtaaaat	tgcatggctt	37740
ttttttgttt	cttttttttt	gagacggagt	ctcactcagt	cgcccaggct	ggagtgcagt	37800
gggtgcgatct	cggcttactg	caagtccac	ctcccgtgtt	cacgccattc	tcctgcctca	37860
gcctctctag	tagctgggac	tacaggtgcc	catcaccacg	cccggcta	tttttgtatt	37920
tttagtagag	acagggtttc	actgtgttag	ccaggatggt	ctccatctcc	tgacctcggt	37980
atccgcctac	ctcagtcctc	caaagtgtctg	gaattacagg	tgtggggccac	catgtgcggc	38040
ctaaaattac	atggttattt	ttaagatgat	gggcatatgt	gtgagcta	ttcttctctt	38100
ataaaggaaa	tgtaacaagt	ggttcatgtt	ccactccggt	tccttctcac	atggctcttt	38160
tttctagtgg	aggggtgggca	catggagcac	agaaggctca	tggcctcctt	tcctatgttt	38220
gtacatttgc	tatgatcaaa	aactttgaac	accattggta	tgcatatttt	ttattttattt	38280
ttttgcagcc	tcagtctctt	ccccatgacc	tctccaaaaa	tgaaaaatcgg	atccttcatc	38340
tctctgctta	aaatacttca	tgagctccca	ttgttccgag	gatataattc	agaagccata	38400
atactgctta	aaaacccttc	cttgacctgg	cctctgtgta	tccttccatt	ctcacttctt	38460
ggtagtgtct	ttttttcctc	tgcccatgga	ggaaagacaa	tgcttttgtc	ccccttccct	38520
tgccctcac	caccacatgc	ccttggtggc	agcattactt	ctgccatcca	tggttcttga	38580
ctgcttccac	cctcaccatt	cccctggcta	attctcacta	atctagggtta	aaggatgcca	38640
agggtggcctc	ttcccagtaa	gccattcatg	cttccctcca	gggactgggt	gaggtgacc	38700
tcctatatgc	ttctgttgca	cacagtgcct	acccctgcag	actacagtgt	gtctttatct	38760
agagtgcggg	atttattttat	ttatttttga	gacaaggctg	ggctctatca	cccgggctgg	38820
agtgcagtgg	caccatcttg	gctcactgca	acctacgcct	cctagggtca	agcaatctca	38880
cctcagctta	caggcgtgca	ccaccatgcc	tggctaagtt	ttgaattttt	ttgtttgaga	38940
cgggggtttcg	ccatgttgcc	caggctggct	tcaaacttgt	gagctgaagc	aatccatctg	39000
cctcggcctc	ccagagtgc	gggaatgagc	acttaattat	ttgtttgtctt	gggttttctt	39060
cctatgttgt	tcttacatgt	atttatcctg	tcagcccagg	gaaattgcat	taaaaaacagg	39120
aaacacctct	ccattaggaa	gaaaaacaat	ttgcttacag	ggcatggcat	agagctggag	39180
atgatagtgc	caataaatac	taggttggca	gggtctcaga	gttttgtgtc	caactcagta	39240
taattttatg	tttgttttta	tgtgatcatt	tcaggagagc	atggaatgtc	atgaaaacag	39300
caccaagagc	aatgtcttag	actttttagg	gaaacttaga	tgcatttgtt	gaatatcttc	39360
tagactgaaa	ccttattttc	ccttattagc	tatgaaataa	atgatactgt	gagacttagt	39420
taaggaagtt	actattattc	caagtgtaac	ttattaatat	ccgtatgtga	aagcattttt	39480
gccaaagctt	gtttgatgtt	cagctgacct	ttgcacaacg	tgagtttcaa	ctgtgcgagt	39540
ttgaactgtg	tgggtttatc	taaatgtgga	tctctctcaa	acacagttgg	ccctttgtgt	39600
ccacggcttc	tgcatccaca	atcagtgtgg	atcaaaagta	caatatattgc	aggatttgaa	39660
acttgcagat	acagagggcc	aacattttgt	gtatccaggc	tccatggggt	caaatgtagg	39720
actgggggat	gcttggattt	tggatatcctt	gggggtgtcct	ggaaccaatt	ccccatagat	39780
actgggggac	aactgtagtt	tgattttata	tattatataa	tatgcagtta	atatataata	39840
cacattttaaa	aattatgtag	ccttgggttt	attgctatat	gtaaaatgcta	gtttctattc	39900
ctatatataa	atatcacaag	taataaagtt	ctcattaatc	attttttttag	gatcccaaag	39960
aatatcttcc	atttcttaat	acacttaaga	aaatggaaac	taattatcag	cgttttacta	40020
tagacaaata	cctgaaacga	tatgaaaaag	ccattggcca	cctcagcaaa	tggtgtaagt	40080
gtggggatta	gtatgtttat	ctctacttca	gatcttcttt	ggaactaggc	aaggataaaa	40140
ttaaactgtt	agtttagaca	gtgactgatt	tcacttccca	ctcctgaaaa	ctctaacaat	40200
tatgtatgct	cacgttattt	tgtcctgtgt	tctgaaaagc	tgaaggtaat	cacttttaat	40260
gaactggagg	agctcccag	gtaagaacgt	caagtagatc	cttttttggg	taagaatgag	40320
cacctgtgaa	gtgtctcaga	gtgtctcaga	gttgacagtt	gttgacagtt	cttcttctc	40380
atgctgtttg	cagacatgtc	agggaaactc	tgcttgtctg	gagagagtga	tgaggccacc	40440
tccccgtgcc	ctgcaagacg	cagttttaat	tgacagtgat	ggggtgccag	ttgttcttcc	40500
catgctggaa	cagttgtgat	tctttactga	ggactgatgg	gggaaaggaa	gaatcacctg	40560
gggtgcatgt	taagccttca	gctgctggca	tccttgagga	atctgattca	ggtggctctg	40620
gtaggactg	aggcgtgc	gtgtctaata	agcttccag	gtgatgtctt	ttcaaggagg	40680
ctgagaaaac	actgggtcgg	aaagctggga	ctcttaagta	ggatgctgat	cccaatcagt	40740
gctgctcttg	cctcagaatc	tgcagtgggt	ctcattaaaa	attcaaatc	caggatccca	40800
ttcttcagat	tctctgatta	tttaggtctt	aaaaagttcc	tcattttattt	tggttggtga	40860
ccatttggat	aaatgaagtc	cattatgctt	cccatgtctt	aagcctgtct	ttgtgtgaat	40920
ctttttcctg	caggacctga	gtacttccca	gaatgcttaa	acttgataaa	agataaaaaac	40980
ttgtataacg	aagctctgaa	gttatattca	caaagctcac	aacagtacca	ggtagtggt	41040
atgtgaaaat	gaggctctcc	tggttttgct	ttttgcttta	gtaggaaagg	agtgaggatc	41100
ctaagttcat	aacaccatcc	ttggcttcaa	aatttatctt	aaaactaatt	agcctcaatt	41160
tgaacttctt	atctggggaga	atggctcctga	cctgttctct	gattcctcat	ctggaatacc	41220
acagcacctt	cctcgtgggg	ttccctgctt	ctttccacc	cctcctctag	cccaacctta	41280

ctgctgtaag	tctgattatc	ctaacaagta	cagatctttc	ccatatattt	cagcataaag	41340
ggaaatTTTT	gtttgcttga	aaaagcatcc	cttttagcttt	ttttatatac	cacacacttt	41400
gcttctaagt	taaagtgtgt	atatgatcct	cttaacagcc	tcataggggtg	ctgtacacaa	41460
ttttagatag	aggaagcaac	ttgcctgagg	atccagagct	acaaagtgtc	ggacctggga	41520
tacagagccc	aggctgcctg	accaccctgc	ccatgccatt	aaccaccact	ctaccatgcc	41580
accagcatca	ccattttcag	tttgtcctca	gacaatatac	acatctttct	ttgatcaagc	41640
ccctgccagc	ttcttttagca	ccagcttctg	ccactgtcca	cattcccagt	tacttgtagg	41700
tagttctaca	gatgtcacat	cgtgtgattc	ctctgtcatt	tctctaccca	ccagccttcc	41760
tttagcccca	tttgtccatc	agaacccttg	ggttactcct	gaatgccatt	cctggaccag	41820
gcgccaaaca	ctgagccccc	agagcagcct	gccctgcctc	tggtgattgc	atttgtcaaa	41880
ctgctgatta	gctggtttgt	cacctccacc	aggctgtggg	ctccctaagg	gcagggactc	41940
catgttgtat	tcctctctga	atctctggct	aacatccagc	ctggagaatc	gaggatttgg	42000
ccagtggata	cctctttgcc	cttgttttct	gttctcttcc	acactctctc	tgctctagtc	42060
acactggccg	tcctgttact	cctcagacct	gctatacaca	ttcctgctgc	atggccatgg	42120
tgccttctgt	gcccctctgc	tggtgcccc	tatctcatca	cgtggtttat	tctcctgaca	42180
gccattagag	ctcacactcc	ctgagagctg	caaggagact	gtcctctgtc	cctttactca	42240
cgtttgccat	tatgctatag	actatatattt	gtcccctaagt	ccatcctctg	ttactataag	42300
agcagcaact	tggtgggtgt	tcttatatgg	tttttcattt	gtttggtttt	attttttgcc	42360
ttgctgtagt	atccatactg	cccagaatgg	tgcataatga	gttaagagta	attatttgtt	42420
gagtgaataa	atggcacatc	ctcagtaagg	ttttgaatga	aaaaatgact	gtactaactg	42480
atcaactgta	agattttccc	aggtaattct	ttcaaggagg	ttccaagtat	aggaactaag	42540
gcagctacac	tggagcttta	gagaaatgat	tgtcatattt	cctcctcagt	cctaaatctc	42600
ctcttgtcac	aggatatcag	cattgcttat	ggggagcacc	tgatgcagga	gcacatgtat	42660
gagccagcgg	ggctcatgtt	tgcccgttgc	ggtgcccacg	agaaagctct	ctcagccttt	42720
ctgacatgtg	gcaactggaa	gcaagccctc	tgtgtggcag	cccagcttaa	ctttaccaaa	42780
gaccagctgg	tgggcctcgg	cagaactctg	gcaggtaagt	acaatcattt	atatgtttac	42840
atctacaaag	gttttaaaaa	atttatttct	tttgtttggg	aattttgcaa	ataaatttag	42900
ggcagaatac	tctgagacag	tcttgttctc	actgataaaa	attaatttag	aatgctttaa	42960
aggataagct	actacagcaa	gagtcccaga	atgcagtggc	ccaatatgga	aagaagttaa	43020
tttctctctc	ccatagggat	ttataggccc	ttccgttgtg	tggctctgca	accttttagg	43080
cagatggttg	tagctgggtt	atctccacag	ctgtggggaa	ggaaggagag	tggggagaa	43140
ttagaatcat	ggtaaaacat	ttaccttaa	gttggaatg	acctggatgg	aagttaaact	43200
atcaccttct	attccatctc	ggccacgcca	tgtagctgga	tgggctgtgc	cctgtaagaa	43260
ggtaaagatg	aatttttggg	tgggtccatt	ctgttataga	cagtaggttg	ttggaatagc	43320
caggaatgag	gtggggaaaa	taaaaggcca	aatgtcgaag	cattctgaaa	gcaaaggcag	43380
tttagctgcg	tcagggacaa	gggttgcccc	aaccagaggc	gaggctggta	ccaggggctc	43440
tagtaccaga	gtggagggaa	gggtaaggac	acctatgaaa	agagatgagc	agaagctctg	43500
gtcatctcag	cagtgcctga	agtaaaagcaa	tgactggatg	atttttttcc	ctaaacttga	43560
aatattgttg	agatctcaaa	gaaaaaaaata	taaaagcagtc	ctaaaaaaat	tccaaactct	43620
atcctgttaa	attttgttaa	atttatgtac	cagtccttct	ttgtcatttg	cagtatttctt	43680
tttttcttgg	gattatacca	gtgtatggga	ttatcacttt	tctttttctg	gttattagcc	43740
tttcccaaat	ccctccgttt	ccatgctggc	ctctttttac	aaatgtcag	aattccttat	43800
ttcaggcctt	ttagtatttc	gttcggctct	cattgttctc	ttctgcttta	gaaatttatg	43860
atatgggttg	tttataccct	ctatctctgt	tttggattct	cttctattct	ttacagctct	43920
tagcttgcta	tttcccatgt	cttatgaggg	agtatttcta	gttttttctca	gatgttttagc	43980
aaaagtaggt	ggggagggca	gtggtcaaag	atgtttgaga	aatgtttacac	actggagtca	44040
ctctgtgtgt	acatttaacg	taggcagttt	acacaagaga	gcaaaaagaaa	ggtaactatt	44100
taaatagtgg	aggtgatttt	acctactttt	tttagtgata	tatgcactgg	agtgagcatg	44160
caatgagaga	ccggaatcta	ccagctcctt	cgaaagcctt	gggttctctg	tgccctctcat	44220
tgtggtttat	ctcaattggg	ctgagagtga	ttctaggatc	taaaagacact	gcatgactca	44280
aacataagtc	agctacctcc	atctagtgtc	caaccaaaaga	aatagtggtc	tcttactgtt	44340
aagggacgaa	gtggtttagt	gagagatacc	aggtcatttt	cccatatata	tgcttttgaa	44400
gcattcttca	aggctaattt	tggctgtata	tgattttcaa	ttcctgtgct	aaatttagat	44460
tctagctgcc	atttaagata	ggactctgtg	gtgtatatac	ctattccctc	acagaaattc	44520
agaaagtaca	tagtttcata	cataataaag	acattatata	gaagcacttg	agctaaagta	44580
tctgtttaac	ttttagtagca	actgctgctt	attgtctcta	caggaaaagct	ggttgagcag	44640
aggaagcaca	ttgatgcggc	catggttttg	gaagagtgtg	cccaggtaaa	ctcaatttct	44700
cccttctaaa	ccccccagtc	agcaagaaaag	gtcttctcaa	ttgtatctta	gtgatcatga	44760
aagttaaagg	aactgtgcat	aattgttaaag	tccagagata	gtgtttgccc	cagaggtctt	44820
atcttgcctg	cttgacttgg	aaatctaaat	ttagtacatc	tctaagtttg	gtgaggtaga	44880
atatgaagggt	gctctacttt	aacataccac	tggtttgacc	ttggtagaaa	gtacttaatt	44940
acatctcaag	gtagctgtgc	tttttaaaat	tgagtttgcc	aaagtagaaa	caatgagaaa	45000
ggaccattat	aaaacaggat	cattgaaggc	tacatactct	tggcttttac	tctcattctc	45060
cctattggaa	atgtctcttt	tacctcaggg	acctggagggt	acagcagatt	ataaggataa	45120
gtacccatat	gagcattttg	tagtattata	ggattttatta	tgaaaataat	aaaactgcag	45180

taacactggc	cacagactaa	cagtacacag	gtgcacagtt	gacaccaggg	attattgcct	45240
tgtagagttt	tgacctttga	tgagagagtg	ttttttacag	ttgttactga	tagcacattt	45300
atgtaactta	attgtgcttt	aaaaatattt	aattgtctct	tgtgtaataa	cagtaagtga	45360
aagacgataa	ctaaaaattt	atataattag	atcctggaga	gaatatttgt	tgggtgattg	45420
aattgaaaat	accagtgaat	gaaacatacc	taaaagggtg	gatagggttg	gttggaaaaga	45480
tataccacat	cgagggttaa	ttaaatggat	aagatgtcat	tatctttttt	tcttgtgtaa	45540
ggaagattaa	tgcataaaat	tattttgtgt	aatttacata	caataaaaatt	atgtgttgta	45600
cagttgtata	atttacatat	aataaaagcta	attcaccaat	tttagatgaa	gaattcagta	45660
catttgga	tatgtttgta	gctgtgtaac	caccattgca	ctcatgatct	agaacatttc	45720
taacaccccc	aaaagtcccc	tacttcccc	tttgcagtca	gccttctccc	tccactgcca	45780
gcctttggca	aactgatcag	tcagtaaaagt	ttcacattat	ctagaatttc	atataaacag	45840
aaccatatgg	tatgtagtct	ttttaatctg	gctcctttca	ctcacatagt	gcattggaga	45900
tgcattccatg	ttgtagttaa	ttcctttgta	ttgtcgaata	gtatcccatt	atatgtatat	45960
gtcagaattt	gttgatttac	cagttgatgt	acatttggat	tgttttcagt	ttggggttat	46020
tatgaataac	gcagccatga	acattctagt	gcaggctctt	atggggacag	gagtaggaat	46080
gccacatccc	gtgttaagt	gatgtttaac	tttttaggaa	gctgcagaac	taattctcag	46140
tggccgtatc	attttgcat	cccctcagtg	atatgtgaga	gtgcttcagt	gactcctata	46200
ctcaccaaca	ctgggtgtat	tactgtgaca	ctagatgtat	tatctattgc	tacgtaacaa	46260
cttaccttaa	aagctggcag	cttaaaaacaa	cagaccctat	tatcccactt	tttcaatggg	46320
ccaagaatct	tggctgggct	tagctggggc	ctctggctca	gggtccttta	caaggctgca	46380
attaaggtat	tggccagggc	tagagtcac	tcaaggcttg	actagttttt	aatttcattt	46440
tctaattgtt	tattactagt	atatagaat	atagctgaag	tgttttgag	ggaggctgta	46500
taattgacct	tgtatcctgc	aaccttgcta	aactcattta	ttagtcttag	aagctcttgg	46560
gtgtattctc	taggattttc	tacatcaaca	aacatggttt	ctataaata	agttttatgt	46620
ctttcttaca	atcaataact	ttttctatct	gtattgcatt	ttctagggct	tccagtggtg	46680
tgttgaatag	aagtgttaag	agtgaacatc	cttgcccttt	tcctgatatt	ggagaaaatt	46740
cacttgcctt	ttagcattaa	gtgtcatggt	tgccttttta	aaattttatt	ctatattatt	46800
ttatttttga	gacagagtct	tgctctgtca	cccaggctgg	agtgcagtg	tgtgatctca	46860
gctcactaca	accttgacct	cctaggctca	agcgatcctc	ccacctcagc	ctcctgagta	46920
gctgggactg	caggaacatg	ccaccatgcc	tggctaattt	ttgtattttt	tgtagggatg	46980
gggttttgcc	atgttgccca	ggctggctct	gaactgttgg	attcaagcaa	ttcgctgtc	47040
tcagcctccc	aaagtgcctg	gattacaggc	atgagcctcc	gtgcctggcc	tgatatttgc	47100
tttttttttt	tttttaattg	ctctctattg	cagagtggcg	aaactacaac	ctgtgacaaa	47160
tccagcatgc	cacctgtttt	tgtaaataaa	gctttattgg	agcatagcca	tgctcattag	47220
tttacatctt	gtgtatggct	gctttaacac	tacagcagca	gagttagagt	tgtgacacag	47280
atagtttgcc	ccataaggcc	tataatttact	gtctaactct	ttacaggaaa	aatttgccaa	47340
ttcctgcccc	cttggtttga	ggaaaattccc	ttctgttctt	tgttctgaga	gtttgtatca	47400
tgaatgggtg	tcaaattttg	tcaaatgcat	tttcaactat	gaagggtttt	gttttttagac	47460
gagtgtatag	ggggactagg	tgaattgatt	tctactgtta	aaaccaacct	gcatctcttg	47520
gttcaacccc	acttggattt	atagatttat	tacccttttt	ctcttgtggc	agatttagatc	47580
tactaaaatt	ttcttgagga	tttttgtgtt	tgtgttcatt	agggatattg	tagttttttc	47640
gtgtccttgc	catgttttgg	gtatcaggat	aatgctgctg	tcattgaggg	gtgacaaaaa	47700
tgaggggtgg	tgtcctttac	acttctgttt	tctggaggat	ttcatgtaga	attggtagta	47760
gagtcctagc	tatggttaaa	aacctatgtg	tgatgtttca	gacctgacca	taaacaatta	47820
cagactttac	ctaggaggcc	acatggggaa	aagctgccct	ccctacacca	gacttggcgt	47880
actgccaatg	cattacagtt	tctaaaggga	gttgcagtca	aggactcagg	gccccctgtt	47940
agtcatgctc	ttgtaacagt	atttgcattg	agagtcctgg	cactttcatt	cttaggtctc	48000
tctatctgag	gacatgggccc	aaggctcttct	tcaggcacct	ctgccaaggc	ctgttttatgc	48060
aagaaggagt	ggaaaaacct	tgacattttt	ttccactgtg	actcactacc	cagctacttt	48120
ccacccttag	cccccttcct	ttgcacccat	acccccaa	tccatcaaac	tgctaaagcc	48180
tttttttcca	agctccttca	acagtgaacc	aacctctatg	tctgtgtgga	tccagctgac	48240
tcttgactag	tgagttgttc	cttgggaaaa	aatggaacag	agagagttgg	tgctttccct	48300
ggttttagcc	tcttgcttat	accaatgcaa	tgctgaagg	cttaattcat	ttttgacttg	48360
ttgctttgat	cagctactcc	aacacctgac	agctcagctc	tttctcccag	ctcttgggag	48420
atattttttt	cttttaaatg	ttagtagaat	ataccagtaa	ggccatctcg	gccaggagt	48480
ttctttaatg	aaagtttttc	actattagtt	cagttacttt	agtagacatt	aacctattca	48540
agtttatctg	tgtcttctgg	aatgagcatt	ggtagtttat	gtctttcaag	taatttggtc	48600
atttcatcta	aattgtcaga	tttatgggta	tgaagtgttt	atagtattct	cttattttac	48660
tgtccgtagg	gtctatgggtg	atgtcctgtc	tttcatgtga	gatattgatg	tgtcttcttt	48720
ttcttgatta	ttctggccag	aggtttatca	attttattga	tcttattaaa	gaatgaactg	48780
tttcatgtgt	tttctctatg	atttttctgt	attctatatc	attctttttt	tattatttta	48840
ttatttttatt	tgtcttttat	ttttctagtt	tcttaagggtg	atggcttact	tttatttttt	48900
tcttattttt	ttcttttggt	gttgttggtt	ttttaagaa	acagggtccc	actcttgctc	48960
aggctggagt	gcagtgccac	gatcatgggt	cactgcagtc	tcaaaactcct	acattcaagc	49020
tgtcctcccc	cctcagcctc	cagagtagtt	gggattacag	gtgcatgcc	ccatgcctgg	49080

ctaattttta	atTTTTTTTT	tagagatggg	gtgttactag	ttgcccacgc	tggtctgaaa	49140
ctcctggcct	caagtgatcc	ctccacctct	gcctcccaaa	gtgctgggat	tccatgtgta	49200
agccactgtg	cctggccaag	gtgatggcct	aaagctattg	atttgagatg	attccttact	49260
ttatagttta	agcatataat	gccataaatt	tcctcaagca	ccgttttagt	tacgttatac	49320
aaattttgaa	atgtttttgt	ttcattttcct	aattttccctt	gtgatttctt	tattgaacct	49380
tggcttattt	agaagtatgt	ttaacttgca	gatattggag	atttgccagc	catctttttg	49440
ttattaattt	ctactttaat	tttgttgtga	ttagagaaca	tacattttat	taatttaaata	49500
ttataattta	ttttaattta	taatatgggtc	tgttttacag	aatggttgtgt	gtgtatttga	49560
aaataatatg	aaagctacta	ttattggatg	gagtgttcta	taaatgtcag	ttagattagg	49620
ttgatcatgc	tgttctagct	ttttatatcc	ttattgattt	cctcactact	tgctctatca	49680
atgactggga	aagtgttgaa	gtctcccagt	atttgcctat	ttctcctttg	attctaccag	49740
tgtttgctta	atgtattttg	aagctctggt	ataggtgcat	acatgtttat	gagtatgtta	49800
tagatgtatt	catttttgata	tccttctttc	tctgttacta	ttcctaattc	tgaatttgac	49860
tttaatgtta	ttaataataat	tcttccagcc	ttctcttggt	tagtcttttc	attgcatatc	49920
tttttctatc	cttttacttt	taatctagct	gaatgtagtc	tttattttga	aagtgcggtc	49980
cttggttgata	gcattatttg	ttcttttttt	tttttaaatac	taatttgaca	atctctgtct	50040
tttaattgga	gggttttagac	atttgcattg	aatgtgatta	ccaatatagt	tagattttaaa	50100
cctacagtct	tgctgtttgc	ttttgttttg	tttcattgat	cctttgtttc	ttgttttttt	50160
ctttttttgc	tttcttttgg	atttagtatt	tttcataaatt	ccattttacc	tccactgttg	50220
gcttatttag	tatacttctt	catttcagta	tttttagtgg	tgctgtagga	tttataataa	50280
atatcattaa	ctgaccataa	cttcagataa	tcgtatacta	cttcataata	agtgtaaaaa	50340
ccctacaaga	gtattcaactc	cataataactt	tgttatttgc	tttgcttttaa	gtgatcaatg	50400
attgtttaag	gaaatttttt	aatgaccttt	catgttttatt	cttttttttt	tttttccaaa	50460
agattcagta	ttttccgagt	tttcaaaaac	tgctggccac	tcaaagtgga	tcaacaaaaa	50520
tttaagagct	aaaaactgtaa	aactcttgaa	ggctgggcac	agagggttcat	gcctgtgatt	50580
ccagcacttt	gagaagctga	ggtgggacaa	tcacttgagc	ccagggggtt	gagaccagcc	50640
tggttaacat	agaaaagacct	tgtttctaca	aaaaataaaa	acacaattag	ccaggcatgg	50700
cggtgtgcac	ctgtagtccc	aacttcttgg	gaggccaagg	tggcaggatt	tcctgagcct	50760
gtaagtttga	gactgcagtg	agctgagttc	acgccactgc	acttcagcct	ggacaacaga	50820
acaagaccct	gtctcaaaac	cagaacgaaa	ctataaaact	cttagaagaa	aacagggtca	50880
aatcttcatg	actttggatt	tggcaatgga	tggttagaat	taataccaaa	aacacaatca	50940
ataaattgat	aaattggatt	taataaaaaa	taagaacttt	tgtgtatcaa	ggacattgtc	51000
aagaattgtga	aaagacagca	tatagaatgg	aagaagatat	ttgcaaatcc	tatatctgat	51060
aaaggtttaa	tatccagaat	atgtaaggaa	ctcctgcagc	tcaacaacag	aaagccagtt	51120
aaatcaattt	tgaaatgagc	aaacgcctgt	aaaccagct	gcttggcaga	ttgagacagg	51180
aggattgctt	gaggctagga	gttcaagacc	aacctggaca	acatagttag	accctgtcta	51240
aaaacatttt	tttaattagc	tgggtgtggt	ggcatattcc	tgtagtccca	gctacatggg	51300
agaccaggcc	aggaggatca	cttggggcca	ggcagtcagg	gctgccgtga	gctgtgatta	51360
tgccactgca	tcccagcctg	ggcgacagag	tgagaccctg	tctgagaaaa	aaaaaaaaaa	51420
aagaacaaaa	aaaaatttag	aagattgcta	ttctagtcta	ctattttttc	aaagggtggt	51480
cttgttaaaca	attctggagc	ccacctaatac	ctgctaaatc	aaacttggtg	gtaaagctgg	51540
ggagatgggc	atgtctaaaca	gacgtttctg	gtggttttga	tgtccaggcg	tgcagagaga	51600
tgatgcttac	cttgtgtttt	gtcattattt	tcaggattta	cacccctttc	ttgtcttttg	51660
tatcaatatt	tgtgagtgca	tgaactctag	atgaggcatg	atggtgagaa	ctaggagttc	51720
tcccctggcc	agggagatag	aggcaggctc	gtgggttagtt	ttgtagttag	ctgtgatgac	51780
atctgacatg	ctctcttcac	ttgttgtctt	cttcctgttc	ccttgtcagg	attatgaaga	51840
agctgtgctc	ttgctgttag	aaggagctgc	ctgggaagaa	gctttgaggc	tggtaagaat	51900
cttgtaaatac	ctctggatgt	tgggtgctaa	gcagagagag	caagcaaggg	attccagggtc	51960
agttggaatc	tcttgtcttc	tgaggttcat	gaaataagta	gaaatagggtc	aggttccctg	52020
cttaaggaaa	agcgggtgta	ctaaaatcat	ttttatcatt	cttgataata	atttgaaata	52080
ttactgtctt	ttactgaaat	gaattgaatt	tccttggtcg	ccttgtagga	ggcctgtttt	52140
tcaggaaaaat	attctgatta	cctctgaaaag	taatccatgt	ctttctaagt	atcttaactc	52200
tccagtgact	agaagttttc	cttcctaaaa	tatcgtgttt	ttccttctag	gtatgcaaat	52260
ataacagact	ggatattata	gaaaccaacg	taaagccttc	catttttagaa	ggtgagggtt	52320
ccattttaga	tagaatttctt	catttggaag	aaagtgagga	gagagagatg	agagagcttc	52380
ctcctatttta	ctgtgttttc	ttaataataat	gtcatgtaga	ctcaatcaaa	attaccacct	52440
ggatataata	tttaattctc	actagaattt	ttaaatatgc	tgaactatta	aatggtaaca	52500
aaatatttaa	atgtagaata	cctgtgatca	aatatgatta	agaatctttg	tatttggaata	52560
tagtaaaact	gaatatgaac	tatattagat	aataatataa	cactgataaa	tttctggcat	52620
ttaataatca	ggttgtgggt	atataagata	atctcctatt	attctcaaga	gataaatgct	52680
gaaatatttta	tgaatgaagg	atcatacttc	tgcccttactc	ttaaaagggt	ccacaaaagt	52740
attaatgaat	gtgtgtatgc	atgcagagaa	acaggaagca	aaaaaatgtc	aaaatgttag	52800
taattggtaa	atcaaagtga	agggatatatg	tgtgttcatt	gaactcttac	aacttttatg	52860
taggtttcaa	cgtttcaaag	tatttttttaa	aagttacctt	ttcaaatagaa	gtttgtgggt	52920
cttagagaac	atatgaatat	taccagttct	agaatactca	gatgggtcact	gtgacctctt	52980

aaaagcaaag	tggagaagga	catcagtttg	acttatagaa	accttaggga	gtgggtgatt	53040
ttaagttctg	catttttatg	cacatctacc	ctgtaagtaa	cgctctggcct	ttctgacatt	53100
tacatgtatg	cacattctta	ccttgtctgc	acccccctcc	tccatcctaa	ttaaaacggt	53160
gtcgggggtac	tttttatgtc	attcacttta	ggtacctcta	actgggtact	gaaaacatca	53220
ttcctcatct	ataataatct	aaccagctct	tacttagatt	ttcaccacta	atgagaacct	53280
ttcttagata	aatgccgata	attcatctac	ataggcccaa	aacctattaa	taaaatgcat	53340
ccttggatag	tagtattttg	cttttttaaa	atgtattcta	ctagtgttat	ttttctcttg	53400
tgtatttttc	cattggacaa	tatttattag	atacattttt	tccacatcca	tgggcatttt	53460
gatggatggt	tagccagaaa	catttaggta	attttcttct	tatttttgtt	aactgagctc	53520
ccctccccta	cccccccttt	ttttgtttgt	ttgttttgtt	tgtttgtttg	ttttgccaat	53580
cctcccttgc	tttaggtatc	aagtcttcgt	tcagggtgatt	ttacaagttc	agtggtagcg	53640
catattctgg	gataatgttg	atgaactcta	agatctggaa	tctcagtctc	taatttggtta	53700
atgcttatta	agggaaaaga	gctcgtctgg	aaaacctagt	aacctctttc	tttttgctga	53760
attttaaccc	tccttcactg	ctccccgcct	ttagtttttt	ctctttgctt	aaacctcatg	53820
ctcaaacat	ttccattct	gcatctccag	cccagaaaaa	ttatatggca	tttctggact	53880
ctcagacagc	cacattcagt	cgccacaaga	aacgtttatt	ggtagttcga	gagctcaagg	53940
agcaagccca	gcaggcaggt	ctgggtgagt	atctgcgtga	aggccatcga	cgtgcggggg	54000
cagtgggggt	gggtaacgcc	acacattgtc	tagattgctt	ggtgatccgc	ctgcaatctg	54060
attactgtgc	catgggcaag	tgtgaggctt	ctgtggagcc	ccttcagggc	cctctgtgtc	54120
tgtgtttgtg	tgttggtgaa	gggcaggacc	aagcatgaat	ggggagagct	ctgccagaca	54180
ttccaccta	ccccattca	cccagagcag	ctgaccactt	ccgtgtctaa	caaaatgagt	54240
ttcctcattt	ccagaaaaaa	gttcaggaaa	ctactgattt	acattagtaa	ttactgtatt	54300
taatattatc	tcattcattt	tgagatcaac	tttgcaatca	ttttcatcca	tcctttgata	54360
tgcaccagtt	gactctagtt	agttcattta	ccgccctgaa	agtaaaccga	cacattagca	54420
ggcagtggtt	tcatcggtt	ctggttcttc	ttttctagat	gatgaggtag	cccacgggca	54480
agagtccagc	ctcttctctg	aaactagcag	tgtcgtgagt	ggcagtgaga	tgagtggcaa	54540
atactcccat	agtaactcca	ggatatcagc	gtacgtatca	cattgattca	gcacattgac	54600
tatatcctgg	gcataatagg	aaagtggaa	caaatagatt	ggttttctac	tgggacgggtg	54660
tagtgggagt	ggggagaata	ttcttcagcg	ctgtgtggaa	gttgttcaga	cactttccca	54720
gcataatctga	gacattaaac	ttggcattgg	aagggtttct	tcctcagctt	tgtggcttgt	54780
gtgttttccc	attccccacg	aggcagttcc	tcccctgaat	gctcagttta	tattaacatc	54840
tgattttatt	ttttgaacaa	atgttgtgac	taaattatag	gcactgaaaa	aatgaaaaga	54900
taagcttctt	caattcaaaa	tcaggattgg	aagagaccat	aaatgtaaaa	taagtcataa	54960
cacttttacc	aaatatagta	atttgtcaga	aatatattat	cagcactcat	atggtaggtg	55020
cagtagatgt	tacaaaaaac	ttataaggag	atatgagtta	taagagttaa	tagtcttgct	55080
tgggatgtgt	aaagcaatgc	aagattatat	attcaaactg	aattttgctt	taggaattta	55140
aaatggagat	ctgtgaagtt	gtgtggggct	atcagcaact	gcaagaaaag	agccaggcaa	55200
ggtagcacat	gctctgagtc	ctagctactc	aggaggctta	aaaatatctg	tgtaatttct	55260
aacaggagat	catccaagaa	tcgcccgaaaa	cgaggacgga	agaagcacag	cctcaaagaa	55320
ggcagtcctc	tggaggacct	ggccctcctg	gaggcactga	gtgaagtggg	gcagaacact	55380
gaaaacctga	aagggtatatt	ctcagtcctg	atgatgattc	ctgaccacaa	acaatagtga	55440
ataggcagta	cagacaggca	gagttcagta	ggtgattaag	ctaccatttt	cccaatttga	55500
ggaaagatga	gaacttttag	caggaagggt	catgtctgca	cacattcctg	aagcagccct	55560
tcttagctgg	taacttgagaa	gccttcctcc	atttggcctc	cccctaactg	aactgggaga	55620
gatgcttaag	ccaggataaa	gaattgtggg	acactgcttt	ctgcgtaggc	ccccagcgt	55680
gcttgatttt	ctttttgtag	tacatgtgtt	taattattcc	agcatttggg	aagaaaaaag	55740
ataatgtggg	agaaaaggacc	tgcagtggga	tcatagaaat	ttttggcttt	ggatagaagc	55800
tatgtatgat	tctgtcaatg	gagctgggaa	tataacttac	cactctttca	aatttcttct	55860
ctctagatga	agtataccat	attttaaagg	tactctttct	ctttgagttt	gatgaacaag	55920
gaagggaatt	acagaaggcc	tttgaagata	cgctgcagtt	gatggaaaagg	tcacttccag	55980
aaatttggac	tcttacttac	cagcagaatt	cagctacccc	ggtaagtgtt	ctcagagacg	56040
gtgtgcattt	ttttcatcat	tttcatgggt	tattgtattc	acacaatctc	caagtcaaaa	56100
agttttcctg	ttcttaaaac	ataagatgcc	atagttaaat	tatcttagca	tttatgtgta	56160
agctgtcagt	aagatttgat	atttgcctgt	agagtgaact	gtataccttg	gcataaggta	56220
aatggactgt	cattttccct	tctggatgaa	gtagctgtca	tggagaaaat	gggaaaagta	56280
catgattgct	cctggccttc	aatgagggtg	gagtggggag	agatggggga	agatgggggtc	56340
agagacggcc	tctcactttc	ctttcagaac	tcagggatgg	gatcaggctt	taaagggacc	56400
ccaggcaatt	gcttttccct	ttgttttatg	aaaaatttga	cttgtcactt	ctatgttggt	56460
atgatggact	ttgcgggttg	tgtttaaggc	tgaatcagct	ttgtatcgca	gaattctagt	56520
atattgtcat	ctgttttata	tttataacct	tgttcaactc	cttatacttc	aagtcatttg	56580
ttaagagttt	ttatttggat	tcaaaaaagg	tgggtgatca	gtcaagatct	agaaaaggaaa	56640
acaaaagcct	atctattatt	ttatcacaga	atttaataata	tggatttggt	aaataagtat	56700
tagaggacta	aacaaggcaa	aagggaataa	cagaggaagg	acattgagat	agtaactgta	56760
ggaagcagct	ttaccctcta	gctgagggaa	caggaggagt	tgttgggaat	tattagaatt	56820
tagaagcctg	gaagtggggc	cctgtagagc	tggctcttga	acctctgaga	ggagggtgcc	56880

agccagctaa	tcctggcatt	tctgagggag	ctggttccaa	gcgtacagaa	gtaaatggaa	56940
actggaagga	acagctgctg	ctgggggaaa	agccagccgg	tcggggccagg	tggtggtggtg	57000
gctcacgcct	gtaatcccag	cactttggga	ggccaaggca	ggcgatcac	ctgaagtcag	57060
gagttcgtga	ctaagtgggc	caacatggag	aagccccgtc	tctactaaaa	atacaaaaat	57120
acccgggcat	ggtggcgcac	gcctgtaatc	ccagctactc	aggaggctga	ggcaagagaa	57180
tcgcttgaac	ctgggagaca	gaggttggtga	tgagccaaga	tcgtgccatt	gtactccaac	57240
ctgggcagca	agagcgaatc	tccgtttaaa	aaaaaaaaaa	aaaaagccag	ccaatcacgg	57300
aagaaatcta	gaaatcTTTT	gttcacccctc	cagctttgta	ctccccctct	ggtgttccact	57360
gtaggcagga	catgatggga	agccagcagc	aaggaagaat	atctttcagg	tgcccagccc	57420
cagcaccaca	agcagtggtg	agaagggtgg	gttgagctg	agagattaca	aatcagctca	57480
gtgttttagaa	acacatacgc	ttatcatgtc	ttgatttccct	cattttagaaa	tgggcataag	57540
acttctctgt	gtgcttcaat	agaatgcttt	gaagggttaa	taagagggtg	tgtgtaaaag	57600
cactttacaa	accgttgaaa	taaaagcaac	taggaatcag	ggccccagaa	cttcttgaat	57660
ttattataat	aggtatttct	tagaagaaat	gtgatcatca	tcttcaaaac	tgtagtactt	57720
ttgaagataa	ttgtttttgt	tttttgagac	agggctcac	tctgttgctc	aggctggagt	57780
gcagtgtatc	cgcgtcactg	cagcatccac	cgccccgggc	tcagggtgatc	ctccccctc	57840
agcctcttga	gtagctggga	ctacaggcgc	atgccacaac	acctgggttaa	ttttcaaatt	57900
ttctgtagag	acaggggtgc	accaagttgt	ccccgctggt	cttgaacaac	tcctgggctc	57960
aagtggctctg	cccacctcac	ctctccaaag	tgctgggact	ataggcatca	gccaccatgc	58020
ccggcttgaa	gataataatt	tataatacca	ctcccatgag	tgatcttctc	ttctgatcac	58080
atattcacat	taaggtctat	tttattttat	tttttcttg	ctctgtcacc	caggctagag	58140
tgcatgtaca	gagtgtccaa	tcattggcttg	gtgcagctctc	gaatgcctgg	gctaaagcag	58200
tcctccacc	gcagtctcct	gagtaattgg	gaccacaggt	gcacaccacc	atgccagct	58260
aattttaaaa	tttttcccta	gacatgggga	gagggagtct	tgctgtgttg	cccaagctgg	58320
tcttgaactc	ctggcctcaa	gtgatcctcc	tgcttggtgg	tcccaaaagt	ctgagattac	58380
aggtgtaagc	caccatgcct	cccacattaa	gttctaagac	atcaatttta	tgattgtggt	58440
tttgattggt	gaagtatggt	tgtggtatgt	gcaggatacc	gtgagtgact	tctcatggca	58500
ttgctcttga	gagtggtcca	ccaagggtct	gcactaacca	gggggtgtg	cagaggctcg	58560
ctgcaggctt	gaaattcctg	cggagtcttg	tgttttacct	ggagcacatg	tgcacagttt	58620
ccattctgct	ccatagtatg	cacatgtttg	tatttatttc	aacctaaaaa	tgtttgtttc	58680
ccataactct	ttgcgtataa	ttgatactct	acgtatttgt	agcctctttt	actcttttcc	58740
ctttcctcag	ggagtgggtt	gctcatttag	aaaaggccaa	gatatatcac	tgtagagttt	58800
cgtttctttt	cttttccctc	accccccatc	tttaccttgt	tctgggagaa	aggagaatta	58860
gaagtctgag	ttgcagctgg	agaaactggc	aaattaaaaat	cacattggga	aagagaatta	58920
ctgtgtttca	caccatacca	gtagaaatga	caggctgttt	tctgctggta	gggatttggc	58980
ctttgggtatt	ggcagtcttg	agaagtatta	gataatcttt	gctgatacag	tctattttct	59040
cctcaggttc	taggtcccaa	tctactgca	aatagtatca	tggcatctta	tcagcaacag	59100
aagactctcg	ttcctgttct	tggttagat	tttttctcat	ttaataattac	aatactaagc	59160
agaaggacta	agtattgaga	agtattgaga	agatgcagag	tataaggaga	gattggatac	59220
aatttttcac	tacaaaaaat	tgactacaat	tcttccctcaa	ttctaagacc	gcatcttttag	59280
tatgatcagt	ttcatgtctc	tagcgggtgg	ggacctgggtg	caggaaaaatc	cagcatgacc	59340
attgtatgtg	taatttttaa	aaatattttat	gtggcatatg	cttgttcata	aaggcacacc	59400
acagttccag	tttcagtcta	aactgtctac	atttacatat	acatcaaaaag	attctttctga	59460
agcatcatta	ctggctattg	gcagttatgc	tttgactctt	ggggggcattt	tcataaaact	59520
tgcttatgag	tgggaccttt	ttattatggt	taggattgac	aatataattt	gaaggcaaat	59580
ccaaagaata	ttagcatttt	atacatattt	cctgttttagt	tatgcatgaa	gtgtttttatt	59640
tggtgagggg	agatgattct	caattagatt	acttatttcc	ctaaaaatta	aaaaccctaa	59700
gcgctttctt	ttgaaagtgt	gttagaaaca	tttgatgagt	cagcttgggga	ctttcagtat	59760
ttgcccttac	ttatagtgtg	atcaatgaag	catcttagct	ttgaaaagtg	aatgatagtt	59820
tctaaaataa	ttggcagttt	taactgctat	tatttgcatt	tctagcatgt	gacaagcaac	59880
tttctgaaat	tttttttcac	cgaagtgcta	cactgtaata	gcattttgat	gacatttgaa	59940
gtagcctgtg	gggattcaaa	ttaagtgtga	ctttaacagc	ttatgttgct	accaggaaga	60000
acagctacct	tccatcccag	ctaaactcat	acatccagac	tgtaactact	gtatttcctag	60060
tctctcttct	gtctagagaa	tggcaaggtt	cttttggtat	gcagtttctga	catatccact	60120
tattcttttt	gtttttctaa	gttttttcat	ttagaaaaaa	aaacagatgg	ggtcttaata	60180
tggtgcccag	gctgggtctca	gcctcctggt	ctcaagtgat	cctcctgcct	cggcctccca	60240
aagtgtggg	attacaggcg	tctgcccctg	tgcccagccc	acttatittcc	cagatgctag	60300
gaacttacat	tagacctgag	gccatttggt	cattgtttat	tttgtgctgt	agtccaatcc	60360
agttgtgatt	tctgcctcct	gtgttcctcg	ttgctggcct	gatgctgacc	ttcagggttag	60420
gtcagtccca	tcattcccca	gggtattcta	gatggctttt	ccacttcaaa	gagcactttc	60480
ttgttttcca	gctgagcctt	aaagacaactc	tgtaatatatt	ggagagcccct	cattatctga	60540
gtgtttatta	tcatctaccct	tgtggtttca	aggatgtata	ggaaaaggta	agttcctata	60600
attcaaaaat	tgccactgat	gaactaatca	caaaattagt	gccactcaaa	tattactcag	60660
ctgcccctcc	ccagctaaca	atagttaagt	atattggcac	atccccacaa	gtgaaatcaa	60720
tgacttgatg	ggtcattttct	gattgtttcc	tgctttgatg	caatacaata	tcatgcagat	60780

caattgcaag	tcttgcaaaa	atttagtatt	acataaaaata	gattaaaaatg	atattggaaa	60840
agtacttgaa	tcacagctgg	gttggacttg	ttgcaattga	tgacaaaaata	agtgcctcaa	60900
atgattttga	ctatcaaagg	attgagagag	gtccttagaa	aaattgaaaa	gccctcaagt	60960
tatttttata	aaaatggcct	tttttgtgtg	ctgtgaaatc	cacatatgga	aatgtgaaat	61020
atgtcatgtc	ctgctgtcat	ataatttgtc	agaataatta	ctttcttgcc	caaaagtctg	61080
tactttgtgt	ttatttcaag	ttaagtctag	aatcaaatat	agttgtagtt	atgcctaatt	61140
ttaaaaaatg	agatagagca	cattattttt	gtaactagtt	tttttttttt	tttttcagac	61200
agagtcttgc	tctgtggccc	aggcgggagt	gcagtggcgc	aatctcggct	caactgcaagc	61260
tccgcctccc	gggttcacgc	cattctcctg	cctcaccctc	ctgagttagct	gggactacag	61320
gcgcccgcga	tcacgcccgg	ctaatttttt	tgtattttta	gtagagacgg	ggtttcaccg	61380
tgtagccag	gatgggtctg	atctcctgac	ctcgtgattc	acccgcctcg	gcctcccaaa	61440
gtgctgggat	tacaagcgtg	agccaccgcg	cccgccctgt	aaatagtttt	tttaagataa	61500
agtcttattc	caactttaat	tggaatttat	gaaatacctt	gttgatagtg	aatttattta	61560
agtagccttt	tttcagtatt	gatattcctt	tatctttatg	gcaccattta	gtggagagaa	61620
atgtaaacaa	acataaagat	gtagtattaa	atcataactg	cataaaaatta	actgtagtat	61680
gtactgcact	actgtaataa	ttttgtagct	acctcctgtt	gctattgtgg	tgagttagct	61740
caagtgttac	caatatctgc	ttaaaatgcc	atgtgccgct	aacctatctc	acatgagcag	61800
cacatgagag	tctccattaa	ttgcatatgg	cagcgaaaag	tgatctcttg	cattgtcgtg	61860
tattttttat	caggtttaat	gtaatatcgt	aaaccttaaa	taacaccatg	agacctatag	61920
gaagtaccac	aagtgttgct	cccaggaagc	agagaaaaag	cataacatta	caagaaaaag	61980
ttgactttgt	cgatagtac	tatagattga	ggctgcagc	tgtagttgcc	caccacttca	62040
agataaaatga	acccagtgca	aggactatta	taaaagaaaa	ggaaatttat	gaagctgtca	62100
ctgcagttat	gccagcaggc	atgaaaacct	tgtacttttt	gcaaaaatacc	tttttatggt	62160
gtattgaaga	tgagcttttt	atgtgggtgc	aggattgcta	tgagaaaagg	atacctatac	62220
aactattatg	atgtgagaaa	aagcacagtc	attgtatgag	aacttaaaag	aaaaagatga	62280
aggatcaaag	ctggagaatt	taatgccagc	aaaggatggt	ttgataattt	tagaaaaggag	62340
tttgcttttg	taaatgtctg	gataatagga	aaagcagctc	ctgccatcca	ggaggcagca	62400
gcaaaggcag	tcaggtttat	gatcaggact	gcccttatct	gtaaaagctgc	taacccccga	62460
gcctggaagg	gaaaagatta	acaccagctg	ccaggccttt	ggttgtagca	tacaacaaga	62520
aggcttgagc	aaggagaaca	ctttttctgg	attggttcca	ttgtcgattt	gtccctgaag	62580
ttaagtagta	tcttgccagt	aaggggactg	ccttttaaaag	ttcttttgat	actggagaat	62640
gcccagggcc	accccaaaat	ccatgagttc	aacaccgaag	acattgaagt	gatctacttg	62700
ccccaaaaca	caatcttcta	attcagcctc	tagatcaggg	tgtcataaagg	acctttaagg	62760
ctcgttacaa	acagtactct	atagaaaagga	ttgtcaaatg	tatggaaaag	aaccttgaca	62820
gaacatgaaa	gtctgaaaga	attacaccat	caatgatgcc	atcattgtta	tagaaaaagc	62880
tgtgaaagcc	atcaagccca	ggacaataaa	ttcctgctag	agaaaaactgt	gtccagatgt	62940
gcatgacttc	acaggcttta	cgacagccaa	tcaaggaaaat	catgaaaaag	attgtggatc	63000
tggcacaaaa	aaaaaaaaaa	aaaaaaaaaa	tggtgcattga	aggatttcaa	gataggaatc	63060
ttggagaaat	tcaagagggtg	atagacatca	caccggagga	attaacagaa	gatgacttga	63120
tgagatgag	tacttccaaa	ccagcgccag	acaatgagga	agattacata	aaagaagcag	63180
tgccagaaaa	taaattgaca	ttgtttccaa	aggttccaat	tattcaagac	tgcccttggc	63240
ttcttttaca	acatggatga	ttctatgtta	tgggcaactga	aactaaaaga	aactgtggaa	63300
ggattggtac	cttagagaaa	tgaaaaagca	aaaacatcag	aaattatggt	gtattttctgt	63360
aaagttagtg	acactgagtg	tgccacacct	tcttgccctc	tctttaacct	ccctacctg	63420
tttcatctct	accacccctg	agacagcaag	accaacccct	ccacttcctc	ctctacttca	63480
gcctactcaa	cgtggagatg	acaaagatga	agacctttat	gatgatccac	ttccatttaa	63540
tgaatagtaa	atattgtttt	ctttatgatt	ttcttaatat	tttcttttct	ctagcttact	63600
ttattgtagg	aatgtagtat	ataatacata	taacatacaa	aacatttggt	aactgacttt	63660
ttatgttgc	aatacactgc	cgaacaacag	tactgtattg	gtacttgagt	tttgagattt	63720
cagaagttaa	acatggggcc	agggtgtggtg	gctcacacct	gtaatcccag	cactttggga	63780
ggctgaggtg	ggtggaacga	gaccaggagt	tttgagagta	gcctgggcag	catggtgaaa	63840
ccttgtctct	acagaaaatta	gccagggtatg	gtggtgtaca	cttgtagtcc	cagctacttg	63900
ggaggctgag	gcaggagaat	cgcttgaacc	cagggggctg	aggctgcagt	gagtcagtat	63960
cgtgccactg	cactccaacc	tgggcaacaa	aatgagacc	tgtctcaaaa	aaagaaaaaa	64020
aaaaggtata	tgactgttga	tcagattttt	ggggggctcg	ccccataaac	cctacattca	64080
aggatcaact	gtaatttttc	atgcctgcat	ggctcatatg	tacagattta	ctgctggaag	64140
tttatcataa	ataatgctga	aaaagaaaat	ccttatatat	acatatatttc	tcctatctct	64200
gcttgagta	tatgattcct	ggtagaaaaa	gaaacttaac	aaatctaagt	gaaagagtgc	64260
ctgggagttt	taggttacaa	tgacagaatc	ttttcctaac	cctctctctc	cattcacttt	64320
ttttaagca	ggggcatctt	tattgatcaa	cattgtttgtc	gaagtttcat	cataaagtag	64380
ttcctgtcca	ttactttcac	ttactgaata	tgtgctatca	cattttgtcta	ttccttaaaa	64440
attgagctag	actttacata	tagtgaaatg	cagagatttc	agggtgtacaa	tttgatgagt	64500
tttaataaat	gtatacagcc	atgtgactgc	tgccaccacc	cctccacca	gtttgaaata	64560
cagaacattc	ttccactttg	aatcactggg	tgagcatgcc	tgagggtgaa	atgcagtcct	64620
tcctctcagg	gcggggcctc	caggttgtgt	ttgctctgac	ctggagggtg	caggggtagc	64680

agacacatga	actctggctc	tgatggctct	attgctgcaa	actccacctg	cctagtttgt	64740
ttagtttaga	gttactgcct	cagcgccctc	caacaagagt	atgtctgtca	caatttccct	64800
tcctttcttg	cttttagatg	ctgagctttt	tataccacca	aagatcaaca	gaagaaccca	64860
gtggaagctg	agcctgctag	actgagtgac	tgcagttagg	agggatccga	cagagaagac	64920
catttccact	cattcctggt	gtcctaccac	cccttgctct	ttgagggctg	gctattgaga	64980
actggaaga	gtaaaatgat	aacttacctt	agcattgccca	agaacttcag	cagacaacaa	65040
gcaattctat	ttattttatg	ttgtgtatac	atcttgatca	ttagcaagac	attaagcttt	65100
aaccattatg	gcaccatttt	gtgagaatga	ttgttctttc	acttgggctg	tttgagagca	65160
taattatggg	aatcatgaga	ttaatgtttc	atgatttcta	cctccaaagt	gtgaagacaa	65220
gtaaaacaat	gtttctaaat	tgtcttattt	tgttggcgga	gaagattaca	atggctatta	65280
gtgctacatt	tggtcaaatg	taatcacctta	aatagcttct	gtcacacctta	aactaaaagca	65340
gaataaaaag	tatcctttga	aattataagc	cctcctttgc	tgacagctat	tattttgtaa	65400
catcttacca	ggcatgtg	tttcagttat	aactgggctg	agcctcctat	aattacaatg	65460
tctataggga	ctgttttact	gcctgtgtat	tttctgctag	agagtttagca	atgttagagc	65520
tagaacagat	tagaatttct	aaacagtatc	atgcacagtt	gggtgtgagtg	atcagtggtg	65580
attgtatggc	atgtcatggg	gtgaattatt	ctctgttctc	caaatactgt	ttctttaact	65640
cagatatttt	tggttaggtc	taggccactt	catttatttt	tcgtcatggg	actttactga	65700
cttctcttta	ttcaattctc	cacgccctca	ccaaaaaaaa	ctgtctcaaa	atgagaatat	65760
tttattttca	tggtgagttc	agaaaacgcc	cacttcattc	tgattaaaaa	ttcttccatg	65820
ttttaaatat	cagaaccaga	cctttcttac	tgtgtatctt	agccccatttg	tgtctctata	65880
acaacaacca	gctttcaaag	gaactaatag	agtgaanaat	cactcattac	cacgaggatg	65940
gcacaagcga	ttcacgtagg	ttcacgccct	gtgaccaaaa	cacctcccat	tgggccccac	66000
ttccaacact	gggtgatcaca	tttcaacatg	aggttttaggg	aaacaaatgc	ctaaactaca	66060
gcactgtaca	taaaactaaca	ggaaatgctg	cttttgatcc	tcaaagaagt	gatatagcca	66120
aaattgtaat	ttaagaagcc	tttcccagta	tagcaagatg	ttaaactatag	aatcaatcta	66180
ggagtattca	ctgtaaaaat	caacttttct	gtatgtttga	acattttcac	aatctcatag	66240
gagtttttaa	aaagaagaga	aagaagatat	actttgcttt	ggagaaatct	actttttgac	66300
ttacatgggt	ttgctgtaat	taagtgccca	atattgaaag	gctgcaagta	ctttgtaatc	66360
actctttggc	atgggtaaat	aagcatggta	acttatattg	aaatatagtg	ctcttgcttt	66420
ggataactgt	aaagggaccc	atgctgatag	actggaaata	gaagtaaata	tgtttattg	66479

<210> 2
 <211> 5924
 <212> DNA
 <213> Homo sapiens

<400> 2						
ccagtgtctg	ggctgcctag	ttgacgcacc	cattgagtcg	ctggccttctt	tgcagcgctt	60
cagcgttttc	ccctggaggg	cgctcccatc	cttggaggcc	tagtgccgtc	ggagagagag	120
cgggagccgc	ggacagagac	gcgtgcgcaa	ttcggagccg	actctgggtg	cggactgtgg	180
gagctgactc	tggttagccg	gctgcgcgtg	gctggggagg	cgaggccgga	cgcacctctg	240
tttgggggtc	ctcagagatt	aatgattcat	caagggatag	ttgtactgtt	ctcgtgggaa	300
tcacttcac	atgcgaaatc	tgaaattatt	tcggaccctg	gagttcaggg	atattcaagg	360
tccaggggaat	cctcagtgct	tctctctccg	aactgaacag	gggacgggtg	tcattgggtt	420
agaacatggc	ctgatagaag	tagaccctgt	ctcaagagaa	gtgaaaaatg	aagtttcttt	480
ggtaggcagaa	ggctttctcc	cagaggatgg	aagtggccgc	attgttgggtg	ttcaggactt	540
gctggatcag	gagtcgtgtg	gtgtggccac	agcctctgga	gacgtcatat	tctgcagtct	600
cagcacacaa	cagctggagt	gtgttgggag	tgtagccagt	ggatatctctg	ttatgagttg	660
gagtcctgac	caagagctgg	tgcttcttgc	cacagggtcaa	cagaccctga	ttatgatgac	720
aaaagatttt	gagccaatcc	tggagcagca	gatccatcag	gatgattttg	gtgaaagcaa	780
gtttatcact	gttggatggg	gtaggaagga	gacacagttc	catggatcag	aaggcagaca	840
agcagctttt	cagatgcaaa	tgcatgagtc	tgctttgccc	tgggatgacc	atagaccaca	900
agttacctgg	cggggggatg	gacagttttt	tgctgtgagt	gttgtttgcc	cagaaacagg	960
ggctcggaa	gtcagagtgt	ggaaccgaga	gtttgtcttg	cagtcaacca	gtgagcctgt	1020
ggcaggactg	ggaccagccc	tggcttggaa	accctcaggc	agtttgattg	catctacaca	1080
agataaacc	aaccagcagg	atattgtgtt	ttttgagaaa	aatggactcc	ttcatggaca	1140
ctttacactt	cccttcctta	aagatgaggt	taaggtaaat	gacttgctct	ggaatgcaga	1200
ttcctctgtg	cttgcagtct	ggctggaaga	ccttcagaga	gaagaaagct	ccattccgaa	1260
aacctgtgtt	cagctctgga	ctgttggaaa	ctatcactgg	tatctcaagc	aaagtttatc	1320
cttcagcacc	tgtgggaaga	gcaagattgt	gtctctgatg	tgggaccctg	tgaccccata	1380
ccggctgcat	gttctctgtc	agggtctggc	ttacctcgcc	tatgattggc	actggacgac	1440
tgaccggagc	gtgggagata	attcaagtga	cttgtccaat	gtggctgtca	ttgatggaaa	1500
caggtgtgtg	gtgacagtct	tccggcagac	tgtgggttccg	cctcccatgt	gcacctacca	1560
actgctgttc	ccacaccctg	tgaatcaagt	cacattctta	gcacaccctc	aaaagagtaa	1620

tgaccttgct	gttctagatg	ccagtaacca	gatttctggt	tataaatgtg	gtgattgtcc	1680
aagtgcgtgac	cctacagtga	aactgggagc	tgtgggtgga	agtggattta	aagtttgcct	1740
tagaactcct	catttggaag	agagatacaa	aatccagttt	gagaataatg	aagatcaaga	1800
tgtaaacccg	ctgaaactag	gccttctcac	ttggattgaa	gaagacgtct	tcctggctgt	1860
aagccacagt	gagttcagcc	cccggctctgt	cattcaccat	ttgactgcag	cttcttctga	1920
gatggatgaa	gagcatggac	agctcaatgt	cagttcatct	gcagcgggtg	atgggggtcat	1980
aatcagtcta	tgttgcaatt	ccaagaccaa	gtcagtagta	ttacagctgg	ctgatggcca	2040
gatattttaag	tacctttggg	agtcaccttc	tctggctatt	aaaccatgga	agaactctgg	2100
tggatttcct	gttcggtttc	cttatccatg	caccagagacc	gaattggcca	tgattggaga	2160
agaggaatgt	gtccttggtc	tgactgcagc	gtgtcgcttt	ttcatcaatg	acattgaggt	2220
tgcgtcaaatt	atcacgtcat	ttgcagtata	tgatcagttt	ttattggtga	caaccatttc	2280
ccatacctgc	cagtgttttt	gcctgagggg	tgcttcattt	aaaacattac	aggccggcct	2340
gagcagcaat	catgtgtccc	atggggaagt	tctgcggaaa	gtggagaggg	gttcacggat	2400
tgtcactggt	gtgccccagg	acacaaaagct	tgtattacag	atgccaaagg	gaaacttaga	2460
agttgttcat	catcgagccc	tggtttttagc	tcagattcgg	aagtgggttg	acaaaacttat	2520
gttttaagag	gcatttgaat	gcattgagaaa	gctgagaatc	aatctcaatc	tgattttatga	2580
tcataaccct	aagggtgtttc	ttggaaatgt	ggaaacccttc	attaaacaga	tagattctgt	2640
gaatcatatt	aacttggttt	ttacagaatt	gaaagaagaa	gatgtcacga	agaccatgta	2700
ccctgcacca	gttaccagca	gtgtctacct	gtccagggat	cctgacggga	ataaaataga	2760
ccttgtctgc	gatgctatga	gagcagtcac	ggagagcata	aatcctcata	aatactgcct	2820
atccatactt	acatctcatg	taaagaagac	aaccccagaa	ctggaaattg	tactgcaaaa	2880
agtagcagag	cttcaaggaa	atgctccctc	tgatcctgat	cgctgagtg	ctgaagagtc	2940
cttgaaatat	ttgtctgcatc	tggtagatgt	taatgaatta	tatgatcatt	ctcttggcac	3000
ctatgacttt	gatttgggtcc	tcatggtagc	tgagaagtca	cagaaggatc	ccaaagaata	3060
tcttccattt	cttaatacac	ttaagaaaat	ggaaactaat	tatcagcggg	ttactataga	3120
caaatacttg	aaacgatatg	aaaaagccat	tggccacctc	agcaaagtgt	gacctgagta	3180
cttcccagaa	tgcttaaaat	tgataaaaaga	taaaaacttg	tataacgaag	ctctgaagtt	3240
atattcacca	agctcacaac	agtaccagga	tatcagcatt	gcttatgggg	agcacctgat	3300
gcaggagcac	atgtatgagc	cagcggggct	catgtttgcc	cggtgcgggtg	cccacgagaa	3360
agctctctca	gcctttctca	catgtggcaa	ctggaagcaa	gccctctgtg	tggcagccca	3420
gcttaacttt	accaaagacc	agctgggtgg	cctcggcaga	actctggcag	gaaagctggg	3480
tgagcagagg	aagcacattg	atgcggccat	ggttttggaa	gagagtgtcc	aggattatga	3540
agaagctgtg	ctcttgctgt	tagaaggagc	tgcttgggaa	gaagctttga	ggctgggtata	3600
caaataaac	agactggata	ttatagaaac	caacgtaaag	ccttccattt	tagaagccca	3660
gaaaaattat	atggcatttc	tggaacttca	gacagccaca	ttcagtcgcc	acaagaaacg	3720
tttattggta	gttcgagagc	tcaaggagca	agcccagcag	gcagggtctgg	atgatgaggt	3780
accccacggg	caagagtcag	acctcttctc	tgaaactagc	agtgtcgtga	gtggcagtg	3840
gatgagtggc	aaataactcc	atagtaactc	caggataatca	gcgagatcat	ccaagaatcg	3900
ccgaaaagcg	gagcgggaaga	agcacagcct	caaagaaggc	agtccgctgg	aggacctggc	3960
cctcctggag	gcactgagtg	aagtgggtgca	gaacactgaa	aacctgaaag	atgaagtata	4020
ccatatttta	aagggtactct	ttctctttga	gtttgatgaa	caagggaagg	aattacagaa	4080
ggcctttgaa	gatacgctgc	agttgatgga	aagggtcactt	ccagaaattt	ggactcttac	4140
ttaccagcag	aattcagcta	ccccgggtct	agggtccaat	tctactgcaa	atagtatcat	4200
ggcatcttat	cagcaacaga	agacttcggt	tctgttctt	gatgctgagc	tttttatacc	4260
accaaagatc	aacagaagaa	cccagtgga	gctgagcctg	ctagactgag	tgactgcagt	4320
taggagggat	ccgacagaga	agaccatttc	cactcattcc	tggtgtccta	ccacccttg	4380
ctctttgagg	gctggctatt	gagaactgga	aagagtaaaa	tgataactta	ccttagcatt	4440
gccaagaact	tcagcagaca	acaagcaatt	ctattttattt	tatgttgtgt	atacatcttg	4500
atcattagca	agacattaa	ctttaaccat	tttggtacac	ttttgtgaga	atgattgttc	4560
tttactttgg	gctgtttgag	agcataatta	tggtaatcat	gagattaatg	tttcatgatt	4620
tctacctcca	aagtgtgaag	acaagtaaaa	caatgtttct	aaattgtctt	attttggttg	4680
cggagaagat	tacaatggct	attagtgtca	catttgggtca	aatgtaatca	cttaaatagc	4740
ttcttgtcac	cttaaaactaa	agcagaataa	aaagtatcct	ttgaaattat	aagccctcct	4800
ttgctgacag	ctattatttt	gtaacatctt	accaggtcat	gtgtcttcag	ttataactgg	4860
ctgagccttc	ctataattac	aatgtctata	ggagctgttt	tactgcctgt	gtattttctg	4920
ctagagagtt	agcaatgtta	gagctagaac	agattagaat	ttctaaacag	tatcatgcac	4980
agttgggtgtg	agtgatcagt	gtgcattgta	tggcatgcat	ggttggtgaat	tattctctgt	5040
tctccaaata	ctgtttcttt	aactcagata	tttttgtag	tgtctaggcc	acttcattta	5100
tttttcgtca	tggtacttta	ctgacttctc	tttttcaat	tctccacgcc	ctcacaaaaa	5160
aaaactgtct	caaaaatgaga	atatttttat	tctttactgg	gagtctagaa	aacgccccac	5220
ttcattctga	ttaaaaaatt	cttccatggt	tttaaatatc	agaaccagac	ctttcttact	5280
gtgtatctta	gccccattgt	gtctctataa	caacaaccag	ctttcaaagg	aactaataga	5340
gtgaaaactc	actcattacc	acgaggatgg	cacaagcgat	tcacgtagga	tctgcccctg	5400
tgaccaaaac	acctcccat	gggccccact	tccaacactg	gtgatcacat	ttcaacatga	5460
ggtttagggg	aacaaatgcc	taaactacag	cactgtacat	aaactaacag	gaaatgctgc	5520

```

ttttgacccct caaagaagtg atatagccaa aattgtaatt taagaagcct ttgtcagtat 5580
agcaagatgt taactataga atcaatctag gagtattcac tgtaaaattc aacttttctg 5640
tatgtttgaa cattttcaca atctcatagg agttttttaa aagaagagaa agaagatata 5700
ctttgctttg gagaaatcta ctttttgact tacatgggtt tgctgtaatt aagtgcccaa 5760
tattgaaagg ctgcaagtac tttgtaatca ctctttggca tgggtaaata agcatggtaa 5820
cttatattga aatatagtgc tcttgctttg gataactgta aagggaccca tgctgataga 5880
ctggaaatag aagtaaatgt gtttattgaa aaaaaaaaaa aaaa 5924

```

<210> 3
 <211> 1332
 <212> PRT
 <213> Homo sapiens

```

<400> 3
Met Arg Asn Leu Lys 5 Leu Phe Arg Thr Leu 10 Glu Phe Arg Asp Ile 15 Gln
1
Gly Pro Gly Asn 20 Pro Gln Cys Phe Ser 25 Leu Arg Thr Glu 30 Gln Gly Thr
35
Val Leu Ile 35 Gly Ser Glu His Gly 40 Leu Ile Glu Val 45 Asp Pro Val Ser
50
Arg Glu Val Lys Asn Glu Val 55 Ser Leu Val Ala Glu 60 Gly Phe Leu Pro
65
Glu Asp Gly Ser Gly Arg 70 Ile Val Gly Val Gln 75 Asp Leu Leu Asp Gln 80
85
Glu Ser Val Cys Val 85 Ala Thr Ala Ser Gly 90 Asp Val Ile Leu Cys 95 Ser
100
Leu Ser Thr Gln Gln Leu Glu Cys Val 105 Gly Ser Val Ala Ser 110 Gly Ile
115
Ser Val Met 115 Ser Trp Ser Pro Asp 120 Gln Glu Leu Val 125 Leu Leu Ala Thr
130
Gly Gln Gln Thr Leu Ile Met 135 Met Thr Lys Asp Phe 140 Glu Pro Ile Leu
145
Glu Gln Gln Ile His 150 Gln Asp Asp Phe Gly 155 Glu Ser Lys Phe Ile Thr 160
165
Val Gly Trp Gly Arg 165 Lys Glu Thr Gln Phe His Gly Ser Glu Gly Arg 175
180
Gln Ala Ala Phe 180 Gln Met Gln Met His 185 Glu Ser Ala Leu Pro 190 Trp Asp
195
Asp His Arg 195 Pro Gln Val Thr Trp 200 Arg Gly Asp Gly Gln 205 Phe Phe Ala
210
Val Ser Val Val Cys Pro 215 Glu Thr Gly Ala Arg Lys 220 Val Arg Val Trp
225
Asn Arg Glu Phe Ala Leu 230 Gln Ser Thr Ser Glu 235 Pro Val Ala Gly Leu 240
245
Gly Pro Ala Leu Ala 245 Trp Lys Pro Ser Gly 250 Ser Leu Ile Ala Ser Thr 255
260
Gln Asp Lys Pro 260 Asn Gln Gln Asp Ile 265 Val Phe Phe Glu Lys 270 Asn Gly

```

Leu Leu His Gly His Phe Thr Leu Pro Phe Leu Lys Asp Glu Val Lys
 275 280 285
 Val Asn Asp Leu Leu Trp Asn Ala Asp Ser Ser Val Leu Ala Val Arg
 290 295 300
 Leu Glu Asp Leu Gln Arg Glu Lys Ser Ser Ile Pro Lys Thr Cys Val
 305 310 315 320
 Gln Leu Trp Thr Val Gly Asn Tyr His Trp Tyr Leu Lys Gln Ser Leu
 325 330 335
 Ser Phe Ser Thr Cys Gly Lys Ser Lys Ile Val Ser Leu Met Trp Asp
 340 345 350
 Pro Val Thr Pro Tyr Arg Leu His Val Leu Cys Gln Gly Trp His Tyr
 355 360 365
 Leu Ala Tyr Asp Trp His Trp Thr Thr Asp Arg Ser Val Gly Asp Asn
 370 375 380
 Ser Ser Asp Leu Ser Asn Val Ala Val Ile Asp Gly Asn Arg Val Leu
 385 390 395 400
 Val Thr Val Phe Arg Gln Thr Val Val Pro Pro Pro Met Cys Thr Tyr
 405 410 415
 Gln Leu Leu Phe Pro His Pro Val Asn Gln Val Thr Phe Leu Ala His
 420 425 430
 Pro Gln Lys Ser Asn Asp Leu Ala Val Leu Asp Ala Ser Asn Gln Ile
 435 440 445
 Ser Val Tyr Lys Cys Gly Asp Cys Pro Ser Ala Asp Pro Thr Val Lys
 450 455 460
 Leu Gly Ala Val Gly Gly Ser Gly Phe Lys Val Cys Leu Arg Thr Pro
 465 470 475 480
 His Leu Glu Lys Arg Tyr Lys Ile Gln Phe Glu Asn Asn Glu Asp Gln
 485 490 495
 Asp Val Asn Pro Leu Lys Leu Gly Leu Leu Thr Trp Ile Glu Glu Asp
 500 505 510
 Val Phe Leu Ala Val Ser His Ser Glu Phe Ser Pro Arg Ser Val Ile
 515 520 525
 His His Leu Thr Ala Ala Ser Ser Glu Met Asp Glu Glu His Gly Gln
 530 535 540
 Leu Asn Val Ser Ser Ser Ala Ala Val Asp Gly Val Ile Ile Ser Leu
 545 550 555 560
 Cys Cys Asn Ser Lys Thr Lys Ser Val Val Leu Gln Leu Ala Asp Gly
 565 570 575
 Gln Ile Phe Lys Tyr Leu Trp Glu Ser Pro Ser Leu Ala Ile Lys Pro
 580 585 590
 Trp Lys Asn Ser Gly Gly Phe Pro Val Arg Phe Pro Tyr Pro Cys Thr
 595 600 605

Gln Thr Glu Leu Ala Met Ile Gly Glu Glu Glu Cys Val Leu Gly Leu
 610 615 620
 Thr Asp Arg Cys Arg Phe Phe Ile Asn Asp Ile Glu Val Ala Ser Asn
 625 630 635 640
 Ile Thr Ser Phe Ala Val Tyr Asp Glu Phe Leu Leu Leu Thr Thr His
 645 650 655
 Ser His Thr Cys Gln Cys Phe Cys Leu Arg Asp Ala Ser Phe Lys Thr
 660 665 670
 Leu Gln Ala Gly Leu Ser Ser Asn His Val Ser His Gly Glu Val Leu
 675 680 685
 Arg Lys Val Glu Arg Gly Ser Arg Ile Val Thr Val Val Pro Gln Asp
 690 695 700
 Thr Lys Leu Val Leu Gln Met Pro Arg Gly Asn Leu Glu Val Val His
 705 710 715 720
 His Arg Ala Leu Val Leu Ala Gln Ile Arg Lys Trp Leu Asp Lys Leu
 725 730 735
 Met Phe Lys Glu Ala Phe Glu Cys Met Arg Lys Leu Arg Ile Asn Leu
 740 745 750
 Asn Pro Ile Tyr Asp His Asn Pro Lys Val Phe Leu Gly Asn Val Glu
 755 760 765
 Thr Phe Ile Lys Gln Ile Asp Ser Val Asn His Ile Asn Leu Phe Phe
 770 775 780
 Thr Glu Leu Lys Glu Glu Asp Val Thr Lys Thr Met Tyr Pro Ala Pro
 785 790 795 800
 Val Thr Ser Ser Val Tyr Leu Ser Arg Asp Pro Asp Gly Asn Lys Ile
 805 810 815
 Asp Leu Val Cys Asp Ala Met Arg Ala Val Met Glu Ser Ile Asn Pro
 820 825 830
 His Lys Tyr Cys Leu Ser Ile Leu Thr Ser His Val Lys Lys Thr Thr
 835 840 845
 Pro Glu Leu Glu Ile Val Leu Gln Lys Val His Glu Leu Gln Gly Asn
 850 855 860
 Ala Pro Ser Asp Pro Asp Ala Val Ser Ala Glu Glu Ala Leu Lys Tyr
 865 870 875 880
 Leu Leu His Leu Val Asp Val Asn Glu Leu Tyr Asp His Ser Leu Gly
 885 890 895
 Thr Tyr Asp Phe Asp Leu Val Leu Met Val Ala Glu Lys Ser Gln Lys
 900 905 910
 Asp Pro Lys Glu Tyr Leu Pro Phe Leu Asn Thr Leu Lys Lys Met Glu
 915 920 925
 Thr Asn Tyr Gln Arg Phe Thr Ile Asp Lys Tyr Leu Lys Arg Tyr Glu
 930 935 940
 Lys Ala Ile Gly His Leu Ser Lys Cys Gly Pro Glu Tyr Phe Pro Glu

945	950	955	960
Cys Leu Asn Leu	Ile Lys Asp Lys Asn	Leu Tyr Asn Glu Ala	Leu Lys
	965	970	975
Leu Tyr Ser	Pro Ser Ser Gln Gln	Tyr Gln Asp Ile Ser	Ile Ala Tyr
	980	985	990
Gly Glu His	Leu Met Gln Glu His	Met Tyr Glu Pro	Ala Gly Leu Met
	995	1000	1005
Phe Ala Arg	Cys Gly Ala His	Glu Lys Ala Leu	Ser Ala Phe Leu Thr
	1010	1015	1020
Cys Gly Asn Trp	Lys Gln Ala Leu Cys	Val Ala Ala Gln	Leu Asn Phe
	1025	1030	1035
Thr Lys Asp	Gln Leu Val Gly Leu	Gly Arg Thr Leu	Ala Gly Lys Leu
	1045	1050	1055
Val Glu Gln	Arg Lys His Ile	Asp Ala Ala Met	Val Leu Glu Glu Ser
	1060	1065	1070
Ala Gln Asp	Tyr Glu Glu Ala	Val Leu Leu Leu	Glu Gly Ala Ala
	1075	1080	1085
Trp Glu Glu	Ala Leu Arg Leu	Val Tyr Lys Tyr	Asn Arg Leu Asp Ile
	1090	1095	1100
Ile Glu Thr	Asn Val Lys Pro	Ser Ile Leu Glu	Ala Gln Lys Asn Tyr
	1105	1110	1115
Met Ala Phe	Leu Asp Ser Gln	Thr Ala Thr Phe	Ser Arg His Lys Lys
	1125	1130	1135
Arg Leu Leu	Val Val Arg Glu	Leu Lys Glu Gln	Ala Gln Gln Ala Gly
	1140	1145	1150
Leu Asp Asp	Glu Val Pro His	Gly Gln Glu Ser	Asp Leu Phe Ser Glu
	1155	1160	1165
Thr Ser Ser	Val Val Ser Gly	Ser Glu Met Ser	Gly Lys Tyr Ser His
	1170	1175	1180
Ser Asn Ser	Arg Ile Ser Ala	Arg Ser Ser Lys	Asn Arg Arg Lys Ala
	1185	1190	1195
Glu Arg Lys	Lys His Ser Leu	Lys Glu Gly Ser	Pro Leu Glu Asp Leu
	1205	1210	1215
Ala Leu Leu	Glu Ala Leu Ser	Glu Val Val Gln	Asn Thr Glu Asn Leu
	1220	1225	1230
Lys Asp Glu	Val Tyr His Ile	Leu Lys Val Leu	Phe Leu Phe Glu Phe
	1235	1240	1245
Asp Glu Gln	Gly Arg Glu Leu	Gln Lys Ala Phe	Glu Asp Thr Leu Gln
	1250	1255	1260
Leu Met Glu	Arg Ser Leu Pro	Glu Ile Trp Thr	Leu Thr Tyr Gln Gln
	1265	1270	1275
Asn Ser Ala	Thr Pro Val Leu	Gly Pro Asn Ser	Thr Ala Asn Ser Ile
	1285	1290	1295

Met Ala Ser Tyr Gln Gln Gln Lys Thr Ser Val Pro Val Leu Asp Ala
1300 1305 1310
Glu Leu Phe Ile Pro Pro Lys Ile Asn Arg Arg Thr Gln Trp Lys Leu
1315 1320 1325
Ser Leu Leu Asp
1330

<210> 4
<211> 1332

<212> PRT
<213> Mus musculus

<400> 4
Met Arg Asn Leu Lys Leu His Arg Thr Leu Glu Phe Arg Asp Ile Gln
1 5 10 15
Ala Pro Gly Lys Pro Gln Cys Phe Cys Leu Arg Ala Glu Gln Gly Thr
20 25 30
Val Leu Ile Gly Ser Glu Arg Gly Leu Thr Glu Val Asp Pro Val Arg
35 40 45
Arg Glu Val Lys Thr Glu Ile Ser Leu Val Ala Glu Gly Phe Leu Pro
50 55 60
Glu Asp Gly Ser Gly Cys Ile Val Gly Ile Gln Asp Leu Leu Asp Gln
65 70 75 80
Glu Ser Val Cys Val Ala Thr Ala Ser Gly Asp Val Ile Val Cys Asn
85 90 95
Leu Ser Thr Gln Gln Leu Glu Cys Val Gly Ser Val Ala Ser Gly Ile
100 105 110
Ser Val Met Ser Trp Ser Pro Asp Gln Glu Leu Leu Leu Leu Ala Thr
115 120 125
Ala Gln Gln Thr Leu Ile Met Met Thr Lys Asp Phe Glu Val Ile Ala
130 135 140
Glu Glu Gln Ile His Gln Asp Asp Phe Gly Glu Gly Lys Phe Val Thr
145 150 155 160
Val Gly Trp Gly Ser Lys Gln Thr Gln Phe His Gly Ser Glu Gly Arg
165 170 175
Pro Thr Ala Phe Pro Val Gln Leu Pro Glu Asn Ala Leu Pro Trp Asp
180 185 190
Asp Arg Arg Pro His Ile Thr Trp Arg Gly Asp Gly Gln Tyr Phe Ala
195 200 205
Val Ser Val Val Cys Arg Gln Thr Glu Ala Arg Lys Ile Arg Val Trp
210 215 220
Asn Arg Glu Phe Ala Leu Gln Ser Thr Ser Glu Ser Val Pro Gly Leu
225 230 235 240
Gly Pro Ala Leu Ala Trp Lys Pro Ser Gly Ser Leu Ile Ala Ser Thr
245 250 255

Gln Asp Lys Pro Asn Gln Gln Asp Val Val Phe Phe Glu Lys Asn Gly
 260 265 270
 Leu Leu His Gly His Phe Thr Leu Pro Phe Leu Lys Asp Glu Val Lys
 275 280 285
 Val Asn Asp Leu Leu Trp Asn Ala Asp Ser Ser Val Leu Ala Ile Trp
 290 295 300
 Leu Glu Asp Leu Pro Lys Glu Asp Ser Ser Thr Leu Lys Ser Tyr Val
 305 310 315 320
 Gln Leu Trp Thr Val Gly Asn Tyr His Trp Tyr Leu Lys Gln Ser Leu
 325 330 335
 Pro Phe Ser Thr Thr Gly Lys Asn Gln Ile Val Ser Leu Leu Trp Asp
 340 345 350
 Pro Val Thr Pro Cys Arg Leu His Val Leu Cys Thr Gly Trp Arg Tyr
 355 360 365
 Leu Cys Cys Asp Trp His Trp Thr Thr Asp Arg Ser Ser Gly Asn Ser
 370 375 380
 Ala Asn Asp Leu Ala Asn Val Ala Val Ile Asp Gly Asn Arg Val Leu
 385 390 395 400
 Val Thr Val Phe Arg Gln Thr Val Val Pro Pro Pro Met Cys Thr Tyr
 405 410 415
 Arg Leu Leu Ile Pro His Pro Val Asn Gln Val Ile Phe Ser Ala His
 420 425 430
 Leu Gly Asn Asp Leu Ala Val Leu Asp Ala Ser Asn Gln Ile Ser Val
 435 440 445
 Tyr Lys Cys Gly Asp Lys Pro Asn Met Asp Ser Thr Val Lys Leu Gly
 450 455 460
 Ala Val Gly Gly Asn Gly Phe Lys Val Pro Leu Thr Thr Pro His Leu
 465 470 475 480
 Glu Lys Arg Tyr Ser Ile Gln Phe Gly Asn Asn Glu Glu Glu Glu Glu
 485 490 495
 Glu Asp Phe Ala Leu Gln Leu Ser Phe Leu Thr Trp Val Glu Asp Asp
 500 505 510
 Thr Phe Leu Ala Ile Ser Tyr Ser His Ser Ser Ser Gln Ser Ile Ile
 515 520 525
 His His Leu Thr Val Thr His Ser Glu Val Asp Glu Glu Gln Gly Gln
 530 535 540
 Leu Asp Val Ser Ser Ser Val Thr Val Asp Gly Val Val Ile Gly Leu
 545 550 555 560
 Cys Cys Cys Ser Lys Thr Lys Ser Leu Ala Val Gln Leu Ala Asp Gly
 565 570 575
 Gln Val Leu Lys Ile Leu Trp Glu Ser Pro Ser Leu Ala Val Glu Pro
 580 585 590

Trp Lys Asn Ser Glu Gly Ile Pro Val Arg Phe Val His Pro Cys Thr
 595 600 605
 Gln Met Glu Val Ala Thr Ile Gly Gly Glu Glu Cys Val Leu Gly Leu
 610 615 620
 Thr Asp Arg Cys Arg Phe Phe Ile Leu Val Thr Glu Val Ala Ser Asn
 625 630 635 640
 Ile Thr Ser Phe Ala Val Cys Asp Asp Phe Leu Leu Val Thr Thr His
 645 650 655
 Ser His Thr Cys Gln Gly Phe Ser Leu Ser Gly Ala Ser Leu Lys Met
 660 665 670
 Leu Gln Ala Ala Leu Ser Gly Ser His Glu Ala Ser Gly Glu Ile Leu
 675 680 685
 Arg Lys Val Val Trp Gly Ser Arg Ile Val Thr Val Val Pro Gln Asp
 690 695 700
 Thr Lys Leu Ile Leu Gln Met Pro Arg Gly Asn Leu Glu Val Val His
 705 710 715 720
 His Arg Ala Leu Val Leu Ala Gln Ile Arg Lys Trp Leu Asp Lys Leu
 725 730 735
 Met Phe Lys Glu Ala Phe Glu Cys Met Arg Lys Leu Arg Ile Asn Leu
 740 745 750
 Asn Leu Ile His Asp His Asn Pro Lys Val Phe Leu Glu Asn Val Glu
 755 760 765
 Thr Phe Val Phe Gln Ile Asp Ser Val Asn His Ile Asn Leu Phe Phe
 770 775 780
 Thr Glu Leu Arg Glu Glu Asp Val Thr Lys Thr Met Tyr Pro Pro Pro
 785 790 795 800
 Ile Thr Lys Ser Val Gln Val Ser Thr His Pro Asp Gly Lys Lys Leu
 805 810 815
 Asp Leu Ile Cys Asp Ala Met Arg Ala Ala Met Glu Ala Ile Asn Pro
 820 825 830
 Arg Lys Phe Cys Leu Ser Ile Leu Thr Ser His Val Lys Lys Thr Thr
 835 840 845
 Pro Glu Leu Glu Ile Val Leu Gln Lys Val Gln Glu Leu Gln Gly Asn
 850 855 860
 Leu Pro Phe Asp Pro Glu Ser Val Ser Val Glu Glu Ala Leu Lys Tyr
 865 870 875 880
 Leu Leu Leu Leu Val Asp Val Asn Glu Leu Phe Asn His Ser Leu Gly
 885 890 895
 Thr Tyr Asp Phe Asn Leu Val Leu Met Val Ala Glu Lys Ser Gln Lys
 900 905 910
 Asp Pro Lys Glu Tyr Leu Pro Phe Leu Asn Thr Leu Lys Lys Met Glu
 915 920 925
 Thr Asn Tyr Gln Arg Phe Thr Ile Asp Lys Tyr Leu Lys Arg Tyr Glu

930	935	940
Lys Ala Leu Gly His 945	Leu Ser Lys Cys Gly 950	Pro Glu Tyr Phe Thr Glu 955 960
Cys Leu Asn Leu Ile 965	Lys Asp Lys Asn Leu 970	Tyr Lys Glu Ala Leu Lys 975
Leu Tyr Arg Pro Asp Ser Pro Gln Tyr Gln Ala Val Ser Met Ala Tyr 980 985 990		
Gly Glu His Leu Met Gln Glu His Leu Tyr Glu Pro Ala Gly Leu Val 995 1000 1005		
Phe Ala Arg Cys Gly Ala Gln Glu Lys Ala Leu Glu Ala Phe Leu Ala 1010 1015 1020		
Cys Gly Ser Trp Gln Gln Ala Leu Cys Val Ala Ala Gln Leu Gln Met 1025 1030 1035 1040		
Ser Lys Asp Lys Val Ala Gly Leu Ala Arg Thr Leu Ala Gly Lys Leu 1045 1050 1055		
Val Glu Gln Arg Lys His Ser Glu Ala Ala Thr Val Leu Glu Gln Tyr 1060 1065 1070		
Ala Gln Asp Tyr Glu Glu Ala Val Leu Leu Leu Leu Glu Gly Ser Ala 1075 1080 1085		
Trp Glu Glu Ala Leu Arg Leu Val Tyr Lys Tyr Asp Arg Val Asp Ile 1090 1095 1100		
Ile Glu Thr Ser Ile Lys Pro Ser Ile Leu Glu Ala Gln Lys Asn Tyr 1105 1110 1115 1120		
Met Asp Phe Leu Asp Ser Glu Thr Ala Thr Phe Ile Arg His Lys Asn 1125 1130 1135		
Arg Leu Gln Val Val Arg Ala Leu Arg Arg Gln Ala Pro Gln Val His 1140 1145 1150		
Val Asp His Glu Val Ala His Gly Pro Glu Ser Asp Leu Phe Ser Glu 1155 1160 1165		
Thr Ser Ser Ile Met Ser Gly Ser Glu Met Ser Gly Arg Tyr Ser His 1170 1175 1180		
Ser Asn Ser Arg Ile Ser Ala Arg Ser Ser Lys Asn Arg Arg Lys Ala 1185 1190 1195 1200		
Glu Arg Lys Lys His Ser Leu Lys Glu Gly Ser Pro Leu Glu Gly Leu 1205 1210 1215		
Ala Leu Leu Glu Ala Leu Ser Glu Val Val Gln Ser Val Glu Lys Leu 1220 1225 1230		
Lys Asp Glu Val Arg Ala Ile Leu Lys Val Leu Phe Leu Phe Glu Phe 1235 1240 1245		
Glu Glu Gln Ala Lys Glu Leu Gln Arg Ala Phe Glu Ser Thr Leu Gln 1250 1255 1260		
Leu Met Glu Arg Ala Val Pro Glu Ile Trp Thr Pro Ala Gly Gln Gln 1265 1270 1275 1280		

Ser Ser Thr Thr Pro Val Leu Gly Pro Ser Ser Thr Ala Asn Ser Ile
1285 1290 1295
Thr Ala Ser Tyr Gln Gln Gln Lys Thr Cys Val Pro Ala Leu Asp Ala
1300 1305 1310
Gly Val Tyr Met Pro Pro Lys Met Asp Pro Arg Ser Gln Trp Lys Leu
1315 1320 1325
Ser Leu Leu Glu
1330

<210> 5
<211> 1332
<212> PRT
<213> Homo sapiens

<400> 5
Met Arg Asn Leu Lys Leu Phe Arg Thr Leu Glu Phe Arg Asp Ile Gln
1 5 10 15
Gly Pro Gly Asn Pro Gln Cys Phe Ser Leu Arg Thr Glu Gln Gly Thr
20 25 30
Val Leu Ile Gly Ser Glu His Gly Leu Ile Glu Val Asp Pro Val Ser
35 40 45
Arg Glu Val Lys Asn Glu Val Ser Leu Val Ala Glu Gly Phe Leu Pro
50 55 60
Glu Asp Gly Ser Gly Arg Ile Val Gly Val Gln Asp Leu Leu Asp Gln
65 70 75 80
Glu Ser Val Cys Val Ala Thr Ala Ser Gly Asp Val Ile Leu Cys Ser
85 90 95
Leu Ser Thr Gln Gln Leu Glu Cys Val Gly Ser Val Ala Ser Gly Ile
100 105 110
Ser Val Met Ser Trp Ser Pro Asp Gln Glu Leu Val Leu Leu Ala Thr
115 120 125
Gly Gln Gln Thr Leu Ile Met Met Thr Lys Asp Phe Glu Pro Ile Leu
130 135 140
Glu Gln Gln Ile His Gln Asp Asp Phe Gly Glu Ser Lys Phe Ile Thr
145 150 155 160
Val Gly Trp Gly Arg Lys Glu Thr Gln Phe His Gly Ser Glu Gly Arg
165 170 175
Gln Ala Ala Phe Gln Met Gln Met His Glu Ser Ala Leu Pro Trp Asp
180 185 190
Asp His Arg Pro Gln Val Thr Trp Arg Gly Asp Gly Gln Phe Phe Ala
195 200 205
Val Ser Val Val Cys Pro Glu Thr Gly Ala Arg Lys Val Arg Val Trp
210 215 220
Asn Arg Glu Phe Ala Leu Gln Ser Thr Ser Glu Pro Val Ala Gly Leu
225 230 235 240

Gly Pro Ala Leu Ala Trp Lys Pro Ser Gly Ser Leu Ile Ala Ser Thr
 245 250 255
 Gln Asp Lys Pro Asn Gln Gln Asp Ile Val Phe Phe Glu Lys Asn Gly
 260 265 270
 Leu Leu His Gly His Phe Thr Leu Pro Phe Leu Lys Asp Glu Val Lys
 275 280 285
 Val Asn Asp Leu Leu Trp Asn Ala Asp Ser Ser Val Leu Ala Val Trp
 290 295 300
 Leu Glu Asp Leu Gln Arg Glu Glu Ser Ser Ile Pro Lys Thr Cys Val
 305 310 315 320
 Gln Leu Trp Thr Val Gly Asn Tyr His Trp Tyr Leu Lys Gln Ser Leu
 325 330 335
 Ser Phe Ser Thr Cys Gly Lys Ser Lys Ile Val Ser Leu Met Trp Asp
 340 345 350
 Pro Val Thr Pro Tyr Arg Leu His Val Leu Cys Gln Gly Trp His Tyr
 355 360 365
 Leu Ala Tyr Asp Trp His Trp Thr Thr Asp Arg Ser Val Gly Asp Asn
 370 375 380
 Ser Ser Asp Leu Ser Asn Val Ala Val Ile Asp Gly Asn Arg Val Leu
 385 390 395 400
 Val Thr Val Phe Arg Gln Thr Val Val Pro Pro Pro Met Cys Thr Tyr
 405 410 415
 Gln Leu Leu Phe Pro His Pro Val Asn Gln Val Thr Phe Leu Ala His
 420 425 430
 Pro Gln Lys Ser Asn Asp Leu Ala Val Leu Asp Ala Ser Asn Gln Ile
 435 440 445
 Ser Val Tyr Lys Cys Gly Asp Cys Pro Ser Ala Asp Pro Thr Val Lys
 450 455 460
 Leu Gly Ala Val Gly Gly Ser Gly Phe Lys Val Cys Leu Arg Thr Pro
 465 470 475 480
 His Leu Glu Lys Arg Tyr Lys Ile Gln Phe Glu Asn Asn Glu Asp Gln
 485 490 495
 Asp Val Asn Pro Leu Lys Leu Gly Leu Leu Thr Trp Ile Glu Glu Asp
 500 505 510
 Val Phe Leu Ala Val Ser His Ser Glu Phe Ser Pro Arg Ser Val Ile
 515 520 525
 His His Leu Thr Ala Ala Ser Ser Glu Met Asp Glu Glu His Gly Gln
 530 535 540
 Leu Asn Val Ser Ser Ser Ala Ala Val Asp Gly Val Ile Ile Ser Leu
 545 550 555 560
 Cys Cys Asn Ser Lys Thr Lys Ser Val Val Leu Gln Leu Ala Asp Gly
 565 570 575
 Gln Ile Phe Lys Tyr Leu Trp Glu Ser Pro Ser Leu Ala Ile Lys Pro

580					585					590					
Trp	Lys	Asn 595	Ser	Gly	Gly	Phe	Pro 600	Val	Arg	Phe	Pro	Tyr 605	Pro	Cys	Thr
Gln	Thr 610	Glu	Leu	Ala	Met	Ile 615	Gly	Glu	Glu	Glu	Cys 620	Val	Leu	Gly	Leu
Thr 625	Asp	Arg	Cys	Arg	Phe 630	Phe	Ile	Asn	Asp	Ile 635	Glu	Val	Ala	Ser	Asn 640
Ile	Thr	Ser	Phe	Ala 645	Val	Tyr	Asp	Glu	Phe 650	Leu	Leu	Leu	Thr	Thr	His 655
Ser	His	Thr	Cys 660	Gln	Cys	Phe	Cys	Leu 665	Arg	Asp	Ala	Ser	Phe 670	Lys	Thr
Leu	Gln	Ala 675	Gly	Leu	Ser	Ser	Asn 680	His	Val	Ser	His	Gly 685	Glu	Val	Leu
Arg	Lys 690	Val	Glu	Arg	Gly	Ser 695	Arg	Ile	Val	Thr	Val 700	Val	Pro	Gln	Asp
Thr 705	Lys	Leu	Val	Leu	Gln 710	Met	Pro	Arg	Gly	Asn 715	Leu	Glu	Val	Val	His 720
His	Arg	Ala	Leu	Val 725	Leu	Ala	Gln	Ile	Arg 730	Lys	Trp	Leu	Asp	Lys 735	Leu
Met	Phe	Lys	Glu 740	Ala	Phe	Glu	Cys	Met 745	Arg	Lys	Leu	Arg	Ile 750	Asn	Leu
Asn	Leu	Ile 755	Tyr	Asp	His	Asn	Pro 760	Lys	Val	Phe	Leu	Gly 765	Asn	Val	Glu
Thr 770	Phe	Ile	Lys	Gln	Ile	Asp 775	Ser	Val	Asn	His	Ile 780	Asn	Leu	Phe	Phe
Thr 785	Glu	Leu	Lys	Glu	Glu 790	Asp	Val	Thr	Lys	Thr 795	Met	Tyr	Pro	Ala	Pro 800
Val	Thr	Ser	Ser	Val 805	Tyr	Leu	Ser	Arg	Asp 810	Pro	Asp	Gly	Asn	Lys 815	Ile
Asp	Leu	Val	Cys 820	Asp	Ala	Met	Arg	Ala 825	Val	Met	Glu	Ser	Ile 830	Asn	Pro
His	Lys	Tyr 835	Cys	Leu	Ser	Ile	Leu 840	Thr	Ser	His	Val	Lys 845	Lys	Thr	Thr
Pro	Glu 850	Leu	Glu	Ile	Val	Leu 855	Gln	Lys	Val	His	Glu 860	Leu	Gln	Gly	Asn
Ala 865	Pro	Ser	Asp	Pro	Asp 870	Ala	Val	Ser	Ala	Glu 875	Glu	Ala	Leu	Lys	Tyr 880
Leu	Leu	His	Leu	Val 885	Asp	Val	Asn	Glu	Leu 890	Tyr	Asp	His	Ser	Leu 895	Gly
Thr	Tyr	Asp	Phe 900	Asp	Leu	Val	Leu	Met 905	Val	Ala	Glu	Lys	Ser 910	Gln	Lys
Asp	Pro	Lys 915	Glu	Tyr	Leu	Pro	Phe 920	Leu	Asn	Thr	Leu	Lys 925	Lys	Met	Glu

Thr Asn Tyr Gln Arg Phe Thr Ile Asp Lys Tyr Leu Lys Arg Tyr Glu
 930 935 940
 Lys Ala Ile Gly His Leu Ser Lys Cys Gly Pro Glu Tyr Phe Pro Glu
 945 950 955 960
 Cys Leu Asn Leu Ile Lys Asp Lys Asn Leu Tyr Asn Glu Ala Leu Lys
 965 970 975
 Leu Tyr Ser Pro Ser Ser Gln Gln Tyr Gln Asp Ile Ser Ile Ala Tyr
 980 985 990
 Gly Glu His Leu Met Gln Glu His Met Tyr Glu Pro Ala Gly Leu Met
 995 1000 1005
 Phe Ala Arg Cys Gly Ala His Glu Lys Ala Leu Ser Ala Phe Leu Thr
 1010 1015 1020
 Cys Gly Asn Trp Lys Gln Ala Leu Cys Val Ala Ala Gln Leu Asn Phe
 1025 1030 1035 1040
 Thr Lys Asp Gln Leu Val Gly Leu Gly Arg Thr Leu Ala Gly Lys Leu
 1045 1050 1055
 Val Glu Gln Arg Lys His Ile Asp Ala Ala Met Val Leu Glu Glu Ser
 1060 1065 1070
 Ala Gln Asp Tyr Glu Glu Ala Val Leu Leu Leu Leu Glu Gly Ala Ala
 1075 1080 1085
 Trp Glu Glu Ala Leu Arg Leu Val Tyr Lys Tyr Asn Arg Leu Asp Ile
 1090 1095 1100
 Ile Glu Thr Asn Val Lys Pro Ser Ile Leu Glu Ala Gln Lys Asn Tyr
 1105 1110 1115 1120
 Met Ala Phe Leu Asp Ser Gln Thr Ala Thr Phe Ser Arg His Lys Lys
 1125 1130 1135
 Arg Leu Leu Val Val Arg Glu Leu Lys Glu Gln Ala Gln Gln Ala Gly
 1140 1145 1150
 Leu Asp Asp Glu Val Pro His Gly Gln Glu Ser Asp Leu Phe Ser Glu
 1155 1160 1165
 Thr Ser Ser Val Val Ser Gly Ser Glu Met Ser Gly Lys Tyr Ser His
 1170 1175 1180
 Ser Asn Ser Arg Ile Ser Ala Arg Ser Ser Lys Asn Arg Arg Lys Ala
 1185 1190 1195 1200
 Glu Arg Lys Lys His Ser Leu Lys Glu Gly Ser Pro Leu Glu Asp Leu
 1205 1210 1215
 Ala Leu Leu Glu Ala Leu Ser Glu Val Val Gln Asn Thr Glu Asn Leu
 1220 1225 1230
 Lys Asp Glu Val Tyr His Ile Leu Lys Val Leu Phe Leu Phe Glu Phe
 1235 1240 1245
 Asp Glu Gln Gly Arg Glu Leu Gln Lys Ala Phe Glu Asp Thr Leu Gln
 1250 1255 1260

Leu Met Glu Arg Ser Leu Pro Glu Ile Trp Thr Leu Thr Tyr Gln Gln
 1265 1270 1275 1280
 Asn Ser Ala Thr Pro Val Leu Gly Pro Asn Ser Thr Ala Asn Ser Ile
 1285 1290 1295
 Met Ala Ser Tyr Gln Gln Gln Lys Thr Ser Val Pro Val Leu Asp Ala
 1300 1305 1310
 Glu Leu Phe Ile Pro Pro Lys Ile Asn Arg Arg Thr Gln Trp Lys Leu
 1315 1320 1325
 Ser Leu Leu Asp
 1330

<210> 6
 <211> 1213
 <212> PRT
 <213> *Drosophila melanogaster*

<400> 6
 Met Arg Asn Leu Lys Leu Arg Tyr Cys Lys Glu Leu Asn Ala Val Ala
 1 5 10 15
 His Pro Gln His Leu Leu Leu Gln Pro Glu Leu Asn Gly Gly Ala Ser
 20 25 30
 Asp Ile Tyr Phe Val Val Ala Asp Asn Lys Thr Tyr Ala Val Gln Glu
 35 40 45
 Ser Gly Asp Val Arg Leu Lys Val Ile Ala Asp Leu Pro Asp Ile Val
 50 55 60
 Gly Val Glu Phe Leu Gln Leu Asp Asn Ala Ile Cys Val Ala Ser Gly
 65 70 75 80
 Ala Gly Glu Val Ile Leu Val Asp Pro Gln Thr Gly Ala Thr Ser Glu
 85 90 95
 Gly Thr Phe Cys Asp Val Gly Ile Glu Ser Met Ala Trp Ser Pro Asn
 100 105 110
 Gln Glu Val Val Ala Phe Val Thr Arg Thr His Asn Val Val Leu Met
 115 120 125
 Thr Ser Thr Phe Asp Val Ile Ala Glu Gln Pro Leu Asp Ala Glu Leu
 130 135 140
 Asp Pro Asp Gln Gln Phe Val Asn Val Gly Trp Gly Lys Lys Glu Thr
 145 150 155 160
 Gln Phe His Gly Ser Glu Gly Lys Gln Ala Ala Lys Gln Lys Glu Ser
 165 170 175
 Asp Ser Thr Phe Thr Arg Asp Glu Gln Glu Leu Asn Gln Asp Val Ser
 180 185 190
 Ile Ser Trp Arg Gly Asp Gly Glu Phe Phe Val Val Ser Tyr Val Ala
 195 200 205
 Ala Gln Leu Gly Arg Thr Phe Lys Val Tyr Asp Ser Glu Gly Lys Leu
 210 215 220
 Asn His Thr Ala Glu Lys Ser Ala Asn Leu Lys Asp Ser Val Val Trp

225	230					235					240				
Arg	Pro	Thr	Gly	Asn	Trp	Ile	Ala	Val	Pro	Gln	Gln	Phe	Pro	Asn	Lys
				245					250					255	
Ser	Thr	Ile	Ala	Leu	Phe	Glu	Lys	Asn	Gly	Leu	Arg	His	Arg	Glu	Leu
			260					265					270		
Val	Leu	Pro	Phe	Asp	Leu	Gln	Glu	Glu	Pro	Val	Val	Gln	Leu	Arg	Trp
		275					280					285			
Ser	Glu	Asp	Ser	Asp	Ile	Leu	Ala	Ile	Arg	Thr	Cys	Ala	Lys	Glu	Glu
	290					295					300				
Gln	Arg	Val	Tyr	Leu	Tyr	Thr	Ile	Gly	Asn	Tyr	His	Trp	Tyr	Leu	Lys
305					310					315					320
Gln	Val	Leu	Ile	Phe	Glu	Gln	Ala	Asp	Pro	Leu	Ala	Leu	Leu	His	Trp
				325					330					335	
Asp	Thr	Arg	Cys	Gly	Ala	Glu	His	Thr	Leu	His	Val	Leu	Lys	Glu	Ser
			340					345					350		
Gly	Lys	His	Leu	Val	Tyr	Arg	Trp	Ala	Phe	Ala	Val	Asp	Arg	Asn	Asn
		355					360					365			
Ser	Ile	Val	Gly	Val	Ile	Asp	Gly	Lys	Arg	Leu	Leu	Leu	Thr	Asp	Phe
	370					375					380				
Asp	Glu	Ala	Ile	Val	Pro	Pro	Pro	Met	Ser	Lys	Glu	Leu	Gln	Lys	Pro
385					390					395					400
Ile	Met	Leu	Met	Pro	Asp	Ala	Glu	Leu	Ser	Gly	Leu	His	Leu	Ala	Asn
				405					410					415	
Leu	Thr	His	Phe	Ser	Pro	His	Tyr	Leu	Leu	Ala	Thr	His	Ser	Ser	Ala
			420					425					430		
Gly	Ser	Thr	Arg	Leu	Leu	Leu	Leu	Ser	Tyr	Lys	Asp	Asn	Asp	Asn	Lys
		435					440					445			
Pro	Gly	Glu	Trp	Phe	Tyr	Arg	Val	His	Ser	Ser	Val	Arg	Ile	Asn	Gly
	450					455					460				
Leu	Val	Asn	Ala	Val	Ala	Val	Ala	Pro	Tyr	Ala	Met	Asn	Glu	Phe	Tyr
465					470					475					480
Val	Gln	Thr	Val	Asn	Asn	Gly	His	Thr	Tyr	Glu	Val	Ser	Leu	Lys	Ala
				485					490					495	
Asp	Lys	Thr	Leu	Lys	Val	Glu	Arg	Ser	Tyr	Val	Gln	Leu	His	Glu	Pro
			500					505					510		
Ala	Asp	Gln	Ile	Asp	Trp	Val	Ile	Val	Lys	Gly	Cys	Ile	Trp	Asp	Gly
		515					520					525			
Tyr	Thr	Gly	Ala	Leu	Val	Thr	Leu	Arg	Asn	Gln	His	Leu	Leu	His	Ile
	530					535					540				
Asp	Gly	Tyr	Arg	Ile	Gly	Glu	Asp	Val	Thr	Ser	Phe	Cys	Val	Val	Thr
545					550					555					560
Asn	Tyr	Leu	Val	Tyr	Thr	Gln	Leu	Asn	Ala	Met	His	Phe	Val	Gln	Leu
				565					570					575	

Asp Asp Arg Arg Gln Val Ala Ser Arg Asn Ile Glu Arg Gly Ala Lys
 580 585 590
 Ile Val Thr Ala Val Ala Arg Lys Ala Arg Val Val Leu Gln Leu Pro
 595 600 605
 Arg Gly Asn Leu Glu Ala Ile Cys Pro Arg Val Leu Val Leu Glu Leu
 610 615 620
 Val Gly Asp Leu Leu Glu Arg Gly Lys Tyr Gln Lys Ala Ile Glu Met
 625 630 635 640
 Ser Arg Lys Gln Arg Ile Asn Leu Asn Ile Ile Phe Asp His Asp Val
 645 650 655
 Lys Arg Phe Val Ser Ser Val Gly Ala Phe Leu Asn Asp Ile Asn Glu
 660 665 670
 Pro Gln Trp Leu Cys Leu Phe Leu Ser Glu Leu Gln Asn Glu Asp Phe
 675 680 685
 Thr Lys Gly Met Tyr Ser Ser Asn Tyr Asp Ala Ser Lys Gln Thr Tyr
 690 695 700
 Pro Ser Asp Tyr Arg Val Asp Gln Lys Val Phe Tyr Val Cys Arg Leu
 705 710 715 720
 Leu Glu Gln Gln Met Asn Arg Phe Val Ser Arg Phe Arg Leu Pro Leu
 725 730 735
 Ile Thr Ala Tyr Val Lys Leu Gly Cys Leu Glu Met Ala Leu Gln Val
 740 745 750
 Ile Trp Lys Glu Gln Gln Glu Asp Ala Ser Leu Ala Asp Gln Leu Leu
 755 760 765
 Gln His Leu Leu Tyr Leu Val Asp Val Asn Asp Leu Tyr Asn Val Ala
 770 775 780
 Leu Gly Thr Tyr Asp Phe Gly Leu Val Leu Phe Val Ala Gln Lys Ser
 785 790 795 800
 Gln Lys Asp Pro Lys Glu Phe Leu Pro Tyr Leu Asn Asp Leu Lys Ala
 805 810 815
 Leu Pro Ile Asp Tyr Arg Lys Phe Arg Ile Asp Asp His Leu Lys Arg
 820 825 830
 Tyr Thr Ser Ala Leu Ser His Leu Ala Ala Cys Gly Glu Gln His Tyr
 835 840 845
 Glu Glu Ala Leu Glu Tyr Ile Arg Lys His Gly Leu Tyr Thr Asp Gly
 850 855 860
 Leu Ala Phe Tyr Arg Glu His Ile Glu Phe Gln Lys Asn Ile Tyr Val
 865 870 875 880
 Ala Tyr Ala Asp His Leu Arg Ala Ile Ala Lys Leu Asp Asn Ala Ser
 885 890 895
 Leu Met Tyr Glu Arg Gly Gly Gln Leu Gln Gln Ala Leu Leu Ser Ala
 900 905 910

Lys His Thr Leu Asp Trp Gln Arg Val Leu Val Leu Ala Lys Lys Leu
 915 920 925
 Ser Glu Pro Leu Asp Gln Val Ala Gln Ser Leu Val Gly Pro Leu Gln
 930 935 940
 Gln Gln Gly Arg His Met Glu Ala Tyr Glu Leu Val Lys Glu His Cys
 945 950 955 960
 Gln Asp Arg Lys Arg Gln Phe Asp Val Leu Leu Glu Gly His Leu Tyr
 965 970 975
 Ser Arg Ala Ile Tyr Glu Ala Gly Leu Glu Asp Asp Asp Val Ser Glu
 980 985 990
 Lys Ile Ala Pro Ala Leu Leu Ala Tyr Gly Val Gln Leu Glu Ser Ser
 995 1000 1005
 Leu Gln Ala Asp Leu Gln Leu Phe Leu Asp Tyr Lys Gln Arg Leu Leu
 1010 1015 1020
 Asp Ile Arg Arg Asn Gln Ala Lys Ser Gly Glu Gly Tyr Ile Asp Thr
 1025 1030 1035 1040
 Asp Val Asn Leu Lys Glu Val Asp Leu Leu Ser Asp Thr Thr Ser Leu
 1045 1050 1055
 His Ser Ser Gln Tyr Ser Gly Thr Ser Arg Arg Thr Gly Lys Thr Phe
 1060 1065 1070
 Arg Ser Ser Lys Asn Arg Arg Lys His Glu Arg Lys Leu Phe Ser Leu
 1075 1080 1085
 Lys Pro Gly Asn Pro Phe Glu Asp Ile Ala Leu Ile Asp Ala Leu His
 1090 1095 1100
 Asn His Val Thr Lys Ile Ala Gln Gln Gln Gln Pro Val Arg Asp Thr
 1105 1110 1115 1120
 Cys Lys Ala Leu Leu Gln Leu Ala Asn Ala Ala Asp Ala Asp Pro Leu
 1125 1130 1135
 Ala Ala Ala Leu Gln Arg Glu Phe Lys Thr Leu Leu Gln Ala Val Asp
 1140 1145 1150
 Ala Ala Leu Asp Glu Ile Trp Thr Pro Glu Leu Arg Gly Asn Gly Leu
 1155 1160 1165
 Met Ala Asp His Leu Thr Gly Pro Asn Val Asp Tyr Leu Ala Leu Gln
 1170 1175 1180
 Lys Glu Gln Arg Tyr Ala Leu Leu Ser Pro Leu Lys Arg Phe Lys Pro
 1185 1190 1195 1200
 Gln Leu Ile Met Met Asp Trp Gln His Glu Ile Leu Gln
 1205 1210

<210> 7
 <211> 1349
 <212> PRT
 <213> *Saccharomyces cerevisiae*

<400> 7

Met Val Glu His Asp Lys Ser Gly Ser Lys Arg Gln Glu Leu Arg Ser
1 5 10 15
Asn Met Arg Asn Leu Ile Thr Leu Asn Lys Gly Lys Phe Lys Pro Thr
20 25 30
Ala Ser Thr Ala Glu Gly Asp Glu Asp Asp Leu Ser Phe Thr Leu Leu
35 40 45
Asp Ser Val Phe Asp Thr Leu Ser Asp Ser Ile Thr Cys Val Leu Gly
50 55 60
Ser Thr Asp Ile Gly Ala Ile Glu Val Gln Gln Phe Met Lys Asp Gly
65 70 75 80
Ser Arg Asn Val Leu Ala Ser Phe Asn Ile Gln Thr Phe Asp Asp Lys
85 90 95
Leu Leu Ser Phe Val His Phe Ala Asp Ile Asn Gln Leu Val Phe Val
100 105 110
Phe Glu Gln Gly Asp Ile Ile Thr Ala Thr Tyr Asp Pro Val Ser Leu
115 120 125
Asp Pro Ala Glu Thr Leu Ile Glu Ile Met Gly Thr Ile Asp Asn Gly
130 135 140
Ile Ala Ala Ala Gln Trp Ser Tyr Asp Glu Glu Thr Leu Ala Met Val
145 150 155 160
Thr Lys Asp Arg Asn Val Val Val Leu Ser Lys Leu Phe Glu Pro Ile
165 170 175
Ser Glu Tyr His Leu Glu Val Asp Asp Leu Lys Ile Ser Lys His Val
180 185 190
Thr Val Gly Trp Gly Lys Lys Glu Thr Gln Phe Arg Gly Lys Gly Ala
195 200 205
Arg Ala Met Glu Arg Glu Ala Leu Ala Ser Leu Lys Ala Ser Gly Leu
210 215 220
Val Gly Asn Gln Leu Arg Asp Pro Thr Met Pro Tyr Met Val Asp Thr
225 230 235 240
Gly Asp Val Thr Ala Leu Asp Ser His Glu Ile Thr Ile Ser Trp Arg
245 250 255
Gly Asp Cys Asp Tyr Phe Ala Val Ser Ser Val Glu Glu Val Pro Asp
260 265 270
Glu Asp Asp Glu Thr Lys Ser Ile Lys Arg Arg Ala Phe Arg Val Phe
275 280 285
Ser Arg Glu Gly Gln Leu Asp Ser Ala Ser Glu Pro Val Thr Gly Met
290 295 300
Glu His Gln Leu Ser Trp Lys Pro Gln Gly Ser Leu Ile Ala Ser Ile
305 310 315 320
Gln Arg Lys Thr Asp Leu Gly Glu Glu Asp Ser Val Asp Val Ile Phe
325 330 335
Phe Glu Arg Asn Gly Leu Arg His Gly Glu Phe Asp Thr Arg Leu Pro

340						345						350					
Leu	Asp	Glu	Lys	Val	Glu	Ser	Val	Cys	Trp	Asn	Ser	Asn	Ser	Glu	Ala		
		355					360					365					
Leu	Ala	Val	Val	Leu	Ala	Asn	Arg	Ile	Gln	Leu	Trp	Thr	Ser	Lys	Asn		
		370					375					380					
Tyr	His	Trp	Tyr	Leu	Lys	Gln	Glu	Leu	Tyr	Ala	Ser	Asp	Ile	Ser	Tyr		
		385					390					395					
Val	Lys	Trp	His	Pro	Glu	Lys	Asp	Phe	Thr	Leu	Met	Phe	Ser	Asp	Ala		
Gly	Phe	Ile	Asn	Ile	Val	Asp	Phe	Ala	Tyr	Lys	Met	Ala	Gln	Gly	Pro		
Thr	Leu	Glu	Pro	Phe	Asp	Asn	Gly	Thr	Ser	Leu	Val	Val	Asp	Gly	Arg		
		435					440					445					
Thr	Val	Asn	Ile	Thr	Pro	Leu	Ala	Leu	Ala	Asn	Val	Pro	Pro	Pro	Met		
		450					455					460					
Tyr	Tyr	Arg	Asp	Phe	Glu	Thr	Pro	Gly	Asn	Val	Leu	Asp	Val	Ala	Cys		
		465					470					475					
Ser	Phe	Ser	Asn	Glu	Ile	Tyr	Ala	Ala	Ile	Asn	Lys	Asp	Val	Leu	Ile		
Phe	Ala	Ala	Val	Pro	Ser	Ile	Glu	Glu	Met	Lys	Lys	Gly	Lys	His	Pro		
Ser	Ile	Val	Cys	Glu	Phe	Pro	Lys	Ser	Glu	Phe	Thr	Ser	Glu	Val	Asp		
		515					520					525					
Ser	Leu	Arg	Gln	Val	Ala	Phe	Ile	Asn	Asp	Ser	Ile	Val	Gly	Val	Leu		
		530					535					540					
Leu	Asp	Thr	Asp	Asn	Leu	Ser	Arg	Ile	Ala	Leu	Leu	Asp	Ile	Gln	Asp		
		545					550					555					
Ile	Thr	Gln	Pro	Thr	Leu	Ile	Thr	Ile	Val	Glu	Val	Tyr	Asp	Lys	Ile		
Val	Leu	Leu	Ser	Ser	Asp	Phe	Asp	Tyr	Asn	His	Leu	Val	Tyr	Glu	Thr		
Arg	Asp	Gly	Thr	Val	Cys	Gln	Leu	Asp	Ala	Glu	Gly	Gln	Leu	Met	Glu		
		595					600					605					
Ile	Thr	Lys	Phe	Pro	Gln	Leu	Val	Arg	Asp	Phe	Arg	Val	Lys	Arg	Val		
		610					615					620					
His	Asn	Thr	Ser	Ala	Glu	Asp	Asp	Asp	Asn	Trp	Ser	Ala	Glu	Ser	Ser		
		625					630					635					
Glu	Leu	Val	Ala	Phe	Gly	Ile	Thr	Asn	Asn	Gly	Lys	Leu	Phe	Ala	Asn		
Gln	Val	Leu	Leu	Ala	Ser	Ala	Val	Thr	Ser	Leu	Glu	Ile	Thr	Asp	Ser		
Phe	Leu	Leu	Phe	Thr	Thr	Ala	Gln	His	Asn	Leu	Gln	Phe	Val	His	Leu		
		675					680					685					

Asn Ser Thr Asp Phe Lys Pro Leu Pro Leu Val Glu Glu Gly Val Glu
 690 695 700
 Asp Glu Arg Val Arg Ala Ile Glu Arg Gly Ser Ile Leu Val Ser Val
 705 710 715 720
 Ile Pro Ser Lys Arg Ser Val Val Leu Gln Ala Thr Arg Gly Asn Leu
 725 730 735
 Glu Thr Ile Tyr Pro Arg Ile Met Val Leu Ala Glu Val Arg Lys Asn
 740 745 750
 Ile Met Ala Lys Arg Tyr Lys Glu Ala Phe Ile Val Cys Arg Thr His
 755 760 765
 Arg Ile Asn Leu Asp Ile Leu His Asp Tyr Ala Pro Glu Leu Phe Ile
 770 775 780
 Glu Asn Leu Glu Val Phe Ile Asn Gln Ile Gly Arg Val Asp Tyr Leu
 785 790 795 800
 Asn Leu Phe Ile Ser Cys Leu Ser Glu Asp Asp Val Thr Lys Thr Lys
 805 810 815
 Tyr Lys Glu Thr Leu Tyr Ser Gly Ile Ser Lys Ser Phe Gly Met Glu
 820 825 830
 Pro Ala Pro Leu Thr Glu Met Gln Ile Tyr Met Lys Lys Lys Met Phe
 835 840 845

 Asp Pro Lys Thr Ser Lys Val Asn Lys Ile Cys Asp Ala Val Leu Asn
 850 855 860
 Val Leu Leu Ser Asn Pro Glu Tyr Lys Lys Lys Tyr Leu Gln Thr Ile
 865 870 875 880
 Ile Thr Ala Tyr Ala Ser Gln Asn Pro Gln Asn Leu Ser Ala Ala Leu
 885 890 895
 Lys Leu Ile Ser Glu Leu Glu Asn Ser Glu Glu Lys Asp Ser Cys Val
 900 905 910
 Thr Tyr Leu Cys Phe Leu Gln Asp Val Asn Val Val Tyr Lys Ser Ala
 915 920 925
 Leu Ser Leu Tyr Asp Val Ser Leu Ala Leu Leu Val Ala Gln Lys Ser
 930 935 940
 Gln Met Asp Pro Arg Glu Tyr Leu Pro Phe Leu Gln Glu Leu Gln Asp
 945 950 955 960
 Asn Glu Pro Leu Arg Arg Lys Phe Leu Ile Asp Asp Tyr Leu Gly Asn
 965 970 975
 Tyr Glu Lys Ala Leu Glu His Leu Ser Glu Ile Asp Lys Asp Gly Asn
 980 985 990
 Val Ser Glu Glu Val Ile Asp Tyr Val Glu Ser His Asp Leu Tyr Lys
 995 1000 1005
 His Gly Leu Ala Leu Tyr Arg Tyr Asp Ser Glu Lys Gln Asn Val Ile
 1010 1015 1020

Tyr Asn Ile Tyr Ala Lys His Leu Ser Ser Asn Gln Met Tyr Thr Asp
 1025 1030 1035 1040
 Ala Ala Val Ala Tyr Glu Met Leu Gly Lys Leu Lys Glu Ala Met Gly
 1045 1050 1055
 Ala Tyr Gln Ser Ala Lys Arg Trp Arg Glu Ala Met Ser Ile Ala Val
 1060 1065 1070
 Gln Lys Phe Pro Glu Glu Val Glu Ser Val Ala Glu Glu Leu Ile Ser
 1075 1080 1085
 Ser Leu Thr Phe Glu His Arg Tyr Val Asp Ala Ala Asp Ile Gln Leu
 1090 1095 1100
 Glu Tyr Leu Asp Asn Val Lys Glu Ala Val Ala Leu Tyr Cys Lys Ala
 1105 1110 1115 1120
 Tyr Arg Tyr Asp Ile Ala Ser Leu Val Ala Ile Lys Ala Lys Lys Asp
 1125 1130 1135
 Glu Leu Leu Glu Glu Val Val Asp Pro Gly Leu Gly Glu Gly Phe Gly
 1140 1145 1150
 Ile Ile Ala Glu Leu Leu Ala Asp Cys Lys Gly Gln Ile Asn Ser Gln
 1155 1160 1165
 Leu Arg Arg Leu Arg Glu Leu Arg Ala Lys Lys Glu Glu Asn Pro Tyr
 1170 1175 1180
 Ala Phe Tyr Gly Gln Glu Thr Glu Gln Ala Asp Asp Val Ser Val Ala
 1185 1190 1195 1200
 Pro Ser Glu Thr Ser Thr Gln Glu Ser Phe Phe Thr Arg Tyr Thr Gly
 1205 1210 1215
 Lys Thr Gly Gly Thr Ala Lys Thr Gly Ala Ser Arg Arg Thr Ala Lys
 1220 1225 1230
 Asn Lys Arg Arg Glu Glu Arg Lys Arg Ala Arg Gly Lys Lys Gly Thr
 1235 1240 1245
 Ile Tyr Glu Glu Glu Tyr Leu Val Gln Ser Val Gly Arg Leu Ile Glu
 1250 1255 1260
 Arg Leu Asn Gln Thr Lys Pro Asp Ala Val Arg Val Val Glu Gly Leu
 1265 1270 1275 1280
 Cys Arg Arg Asn Met Arg Glu Gln Ala His Gln Ile Gln Lys Asn Phe
 1285 1290 1295
 Val Glu Val Leu Asp Leu Leu Lys Ala Asn Val Lys Glu Ile Tyr Ser
 1300 1305 1310
 Ile Ser Glu Lys Asp Arg Glu Arg Val Asn Glu Asn Gly Glu Val Tyr
 1315 1320 1325
 Tyr Ile Pro Glu Ile Pro Val Pro Glu Ile His Asp Phe Pro Lys Ser
 1330 1335 1340
 His Ile Val Asp Phe
 1345

<210> 8
<211> 1319
<212> PRT
<213> Arabidopsis thaliana

<400> 8
Met Lys Asn Leu Lys₅ Leu Phe Ser Glu Val₁₀ Pro Gln Asn Ile Gln₁₅ Leu
His Ser Thr Glu₂₀ Glu Val Val Gln Phe₂₅ Ala Ala Thr Asp Ile₃₀ Asp Gln
Ser Arg Leu₃₅ Phe Phe Ala Ser Ser₄₀ Ala Asn Phe Val Tyr₄₅ Ala Leu Gln
Leu Ser₅₀ Ser Phe Gln Asn Glu₅₅ Ser Ala Gly Ala Lys₆₀ Ser Ala Met Pro
Val Glu Val Cys Ser Ile₇₀ Asp Ile Glu Pro Gly₇₅ Asp Phe Ile Thr Ala₈₀
Phe Asp Tyr Leu₈₅ Ala Glu Lys Glu Ser Leu₉₀ Leu Ile Gly Thr Ser₉₅ His
Gly Leu Leu Leu₁₀₀ Val His Asn Val Glu₁₀₅ Ser Asp Val Thr Glu₁₁₀ Leu Val
Gly Asn Ile₁₁₅ Glu Gly Gly Val Lys₁₂₀ Cys Ile Ser Pro Asn₁₂₅ Pro Thr Gly
Asp Leu₁₃₀ Leu Gly Leu Ile Thr₁₃₅ Gly Leu Gly Gln Leu₁₄₀ Ile Val Met Thr
Tyr Asp Trp Ala Leu Met₁₅₀ Tyr Glu Lys Ala Leu₁₅₅ Gly Glu Val Pro Glu₁₆₀
Gly Gly Tyr Val Arg₁₆₅ Glu Thr Asn Asp Leu₁₇₀ Ser Val Asn Cys Gly₁₇₅ Gly
Ile Ser Ile Ser₁₈₀ Trp Arg Gly Asp Gly₁₈₅ Lys Tyr Phe Ala Thr Met Gly₁₉₀
Glu Val Tyr₁₉₅ Glu Ser Gly Cys Met₂₀₀ Ser Lys Lys Ile Lys₂₀₅ Ile Trp Glu
Ser Asp Ser Gly Ala Leu Gln₂₁₅ Ser Ser Ser Glu Thr₂₂₀ Lys Glu Phe Thr
Gln Gly Ile Leu Glu Trp Met Pro Ser Gly Ala₂₃₅ Lys Ile Ala Ala Val₂₄₀
Tyr Lys Arg Lys Ser₂₄₅ Asp Asp Ser Ser Pro₂₅₀ Ser Ile Ala Phe Phe Glu₂₅₅
Arg Asn Gly Leu₂₆₀ Glu Arg Ser Ser Phe₂₆₅ Arg Ile Gly Glu Pro Glu Asp₂₇₀
Ala Thr Glu₂₇₅ Ser Cys Glu Asn Leu₂₈₀ Lys Trp Asn Ser Ala₂₈₅ Ser Asp Leu
Leu Ala Gly Val Val Ser Cys₂₉₅ Lys Thr Tyr Asp Ala₃₀₀ Ile Arg Val Trp
Phe Phe Ser Asn Asn His₃₁₀ Trp Tyr Leu Lys Gln₃₁₅ Glu Ile Arg Tyr Pro₃₂₀

Arg Glu Ala Gly Val Thr Val Met Trp Asp Pro Thr Lys Pro Leu Gln
 325 330 335
 Leu Ile Cys Trp Thr Leu Ser Gly Gln Val Ser Val Arg His Phe Met
 340 345 350
 Trp Val Thr Ala Val Met Glu Asp Ser Thr Ala Phe Val Ile Asp Asn
 355 360 365
 Ser Lys Ile Leu Val Thr Pro Leu Ser Leu Ser Leu Met Pro Pro Pro
 370 375 380
 Met Tyr Leu Phe Ser Leu Ser Phe Ser Ser Ala Val Arg Asp Ile Ala
 385 390 395 400
 Tyr Tyr Ser Arg Asn Ser Lys Asn Cys Leu Ala Val Phe Leu Ser Asp
 405 410 415
 Gly Asn Leu Ser Phe Val Glu Phe Pro Ala Pro Asn Thr Trp Glu Asp
 420 425 430
 Leu Glu Gly Lys Asp Phe Ser Val Glu Ile Ser Asp Cys Lys Thr Ala
 435 440 445
 Leu Gly Ser Phe Val His Leu Leu Trp Leu Asp Val His Ser Leu Leu
 450 455 460
 Cys Val Ser Ala Tyr Gly Ser Ser His Asn Lys Cys Leu Ser Ser Gly
 465 470 475 480
 Gly Tyr Asp Thr Glu Leu His Gly Ser Tyr Leu Gln Glu Val Glu Val
 485 490 495
 Val Cys His Glu Asp His Val Pro Asp Gln Val Thr Cys Ser Gly Phe
 500 505 510
 Lys Ala Ser Ile Thr Phe Gln Thr Leu Leu Glu Ser Pro Val Leu Ala
 515 520 525
 Leu Ala Trp Asn Pro Ser Lys Arg Asp Ser Ala Phe Val Glu Phe Glu
 530 535 540
 Gly Gly Lys Val Leu Gly Tyr Ala Ser Arg Ser Glu Ile Met Glu Thr
 545 550 555 560
 Arg Ser Ser Asp Asp Ser Val Cys Phe Pro Ser Thr Cys Pro Trp Val
 565 570 575
 Arg Val Ala Gln Val Asp Ala Ser Gly Val His Lys Pro Leu Ile Cys
 580 585 590
 Gly Leu Asp Asp Met Gly Arg Leu Ser Ile Asn Gly Lys Asn Leu Cys
 595 600 605
 Asn Asn Cys Ser Ser Phe Ser Phe Tyr Ser Glu Leu Ala Asn Glu Val
 610 615 620
 Val Thr His Leu Ile Ile Leu Thr Lys Gln Asp Phe Leu Phe Ile Val
 625 630 635 640
 Asp Thr Lys Asp Val Leu Asn Gly Asp Val Ala Leu Gly Asn Val Phe
 645 650 655

Phe Val Ile Asp Gly Arg Arg Arg Asp Glu Glu Asn Met Ser Tyr Val
660 665 670
Asn Ile Trp Glu Arg Gly Ala Lys Val Ile Gly Val Leu Asn Gly Asp
675 680 685
Glu Ala Ala Val Ile Leu Gln Thr Met Arg Gly Asn Leu Glu Cys Ile
690 695 700
Tyr Pro Arg Lys Leu Val Leu Ser Ser Ile Thr Asn Ala Leu Ala Gln
705 710 715 720
Gln Arg Phe Lys Asp Ala Phe Asn Leu Val Arg Arg His Arg Ile Asp
725 730 735
Phe Asn Val Ile Val Asp Leu Tyr Gly Trp Gln Ala Phe Leu Gln Ser
740 745 750
Ala Val Ala Phe Val Glu Gln Val Asn Asn Leu Asn His Val Thr Glu
755 760 765
Phe Val Cys Ala Met Lys Asn Glu Asp Val Thr Glu Thr Leu Tyr Lys
770 775 780
Lys Phe Ser Phe Ser Lys Lys Gly Asp Glu Val Phe Arg Val Lys Asp
785 790 795 800
Ser Cys Ser Asn Lys Val Ser Ser Val Leu Gln Ala Ile Arg Lys Ala
805 810 815
Leu Glu Glu His Ile Pro Glu Ser Pro Ser Arg Glu Leu Cys Ile Leu
820 825 830
Thr Thr Leu Ala Arg Ser Asp Pro Pro Ala Ile Glu Glu Ser Leu Leu
835 840 845
Arg Ile Lys Ser Val Arg Glu Met Glu Leu Leu Asn Ser Ser Asp Asp
850 855 860
Ile Arg Lys Lys Ser Cys Pro Ser Ala Glu Glu Ala Leu Lys His Leu
865 870 875 880
Leu Trp Leu Leu Asp Ser Glu Ala Val Phe Glu Ala Ala Leu Gly Leu
885 890 895
Tyr Asp Leu Asn Leu Ala Ala Ile Val Ala Leu Asn Ser Gln Arg Asp
900 905 910
Pro Lys Glu Phe Leu Pro Tyr Leu Gln Glu Leu Glu Lys Met Pro Glu
915 920 925
Ser Leu Met His Phe Lys Ile Asp Ile Lys Leu Gln Arg Phe Asp Ser
930 935 940
Ala Leu Arg Asn Ile Val Ser Ala Gly Val Gly Tyr Phe Pro Asp Cys
945 950 955 960
Met Asn Leu Ile Lys Lys Asn Pro Gln Leu Phe Pro Leu Gly Leu Leu
965 970 975
Leu Ile Thr Asp Pro Glu Lys Lys Leu Val Val Leu Glu Ala Trp Ala
980 985 990

Asp His Leu Ile Asp Glu Lys Arg Phe Glu Asp Ala Ala Thr Thr Tyr
 995 1000 1005
 Leu Cys Cys Cys Lys Leu Glu Lys Ala Ser Lys Ala Tyr Arg Glu Cys
 1010 1015 1020
 Gly Asp Trp Ser Gly Val Leu Arg Val Gly Ala Leu Met Lys Leu Gly
 1025 1030 1035 1040
 Lys Asp Glu Ile Leu Lys Leu Ala Tyr Glu Leu Cys Glu Glu Val Asn
 1045 1050 1055
 Ala Leu Gly Lys Pro Ala Glu Ala Ala Lys Ile Ala Leu Glu Tyr Cys
 1060 1065 1070
 Ser Asp Ile Ser Gly Gly Ile Ser Leu Leu Ile Asn Ala Arg Glu Trp
 1075 1080 1085
 Glu Glu Ala Leu Arg Val Ala Phe Leu His Thr Ala Asp Asp Arg Ile
 1090 1095 1100
 Ser Val Val Lys Ser Ser Ala Leu Glu Cys Ala Ser Gly Leu Val Ser
 1105 1110 1115 1120
 Glu Phe Lys Glu Ser Ile Glu Lys Val Gly Lys Tyr Leu Thr Arg Tyr
 1125 1130 1135
 Leu Ala Val Arg Gln Arg Arg Leu Leu Leu Ala Ala Lys Leu Lys Ser
 1140 1145 1150
 Glu Glu Arg Ser Val Val Asp Leu Asp Asp Asp Thr Ala Ser Glu Ala
 1155 1160 1165
 Ser Ser Asn Leu Ser Gly Met Ser Ala Tyr Thr Leu Gly Thr Arg Arg
 1170 1175 1180
 Gly Ser Ala Ala Ser Val Ser Ser Ser Asn Ala Thr Ser Arg Ala Arg
 1185 1190 1195 1200
 Asp Leu Arg Arg Gln Arg Lys Ser Gly Lys Ile Arg Ala Gly Ser Ala
 1205 1210 1215
 Gly Glu Glu Met Ala Leu Val Asp His Leu Lys Gly Met Arg Met Thr
 1220 1225 1230
 Asp Gly Gly Lys Arg Glu Leu Lys Ser Leu Leu Ile Cys Leu Val Thr
 1235 1240 1245
 Leu Gly Glu Met Glu Ser Ala Gln Lys Leu Gln Gln Thr Ala Glu Asn
 1250 1255 1260
 Phe Gln Val Ser Gln Val Ala Ala Val Glu Leu Ala His Asp Thr Val
 1265 1270 1275 1280
 Ser Ser Glu Ser Val Asp Glu Glu Val Tyr Cys Phe Glu Arg Tyr Ala
 1285 1290 1295
 Gln Lys Thr Arg Ser Thr Ala Arg Asp Ser Asp Ala Phe Ser Trp Met
 1300 1305 1310
 Leu Lys Val Phe Ile Ser Pro
 1315

<210> 9
 <211> 1178
 <212> PRT
 <213> Caenorhabditis elegans

<400> 9
 Met Lys Asn Leu Gln Ile Gly Ser Val Lys Thr Phe Glu Asn Pro Glu
 1 5 10 15
 Ile Ala Gly Ala Asp Asp Phe Ala Val His Pro Ile Leu Gln Thr Ile
 20 25 30
 Ala Val Ser Thr Lys Asn Glu Leu Leu Leu Glu Asn Asn Leu Ile
 35 40 45
 Ser Ser Thr Ile Lys Trp Ala Glu Gln Arg Arg Glu Leu Glu Val Ile
 50 55 60
 Ser Leu Ser Phe Arg Thr Asp Gly Asn Gln Ile Val Val Ile Leu Ala
 65 70 75 80
 Asp Gly Arg Ala Leu Ile Val Glu Asp Gly Glu Val Met Asp Leu Glu
 85 90 95
 Ile Ala Glu Leu Thr Asp Thr Thr Val Ser Ala Ala Glu Trp Thr Ala
 100 105 110
 Asp Glu Gln Thr Leu Ala Leu Ala Asp Asn Gln Thr Leu Tyr Leu Ala
 115 120 125
 Asp Ser Ser Leu Val Pro Phe Ala Glu Arg Pro Leu Ile Phe Ser Glu
 130 135 140
 Asn Glu Arg Lys Ser Ala Pro Val Asn Val Gly Trp Gly Ser Glu Ser
 145 150 155 160
 Thr Gln Phe Arg Gly Ser Ala Gly Lys Leu Lys Pro Gly Glu Lys Ile
 165 170 175
 Glu Lys Glu Lys Glu Gln Ile Glu Gln His Ser Arg Lys Thr Ser Val
 180 185 190
 His Trp Arg Trp Asp Gly Glu Ile Val Ala Val Ser Phe Tyr Ser Ser
 195 200 205
 Gln Asn Asp Thr Arg Asn Leu Thr Val Phe Asp Arg Asn Gly Glu Ile
 210 215 220
 Leu Asn Asn Met Asn Ile Arg Asn Ile Tyr Leu Ser His Cys Phe Ala
 225 230 235 240
 His Lys Pro Asn Ala Asn Leu Leu Cys Ser Ala Ile Gln Glu Asn Gly
 245 250 255
 Ser Asp Asp Arg Ile Val Ile Tyr Glu Arg Asn Gly Glu Thr Arg Asn
 260 265 270
 Ser Tyr Val Val Lys Trp Pro Ala Asn Gln Ile Glu Asp Arg Arg Ile
 275 280 285
 Ile Glu Lys Ile Glu Trp Asn Ser Thr Gly Thr Ile Leu Ser Met Gln
 290 295 300
 Thr Ser Leu Gly Lys Lys His Gln Leu Glu Phe Trp His Leu Ser Asn
 305 310 315 320

Tyr Glu Phe Thr Arg₃₂₅ Lys Cys Tyr Trp Lys₃₃₀ Phe Ser Glu Ser Ile₃₃₅ Ile
Trp Lys Trp Ser₃₄₀ Thr Val Glu Cys Gln₃₄₅ Asn Ile Glu Val Leu₃₅₀ Leu Glu
Ser Gly Gln₃₅₅ Phe Phe Ser Val His₃₆₀ Ile Thr Pro Thr Ala₃₆₅ Ser Phe Ser
Asp Val₃₇₀ Ile Ser Gln Asn Val₃₇₅ Val Val Ala Thr Asp₃₈₀ Glu Leu Arg Met
Tyr₃₈₅ Ser Leu Cys Arg Arg₃₉₀ Val Val Pro Pro Pro₃₉₅ Met Cys Asp Tyr Ser₄₀₀
Ile Gln Cys Leu Ser₄₀₅ Asp Ile Val Ala Tyr₄₁₀ Thr Thr Ser Thr His₄₁₅ His
Val His Val Ile₄₂₀ Thr Ser Asp Trp Lys₄₂₅ Ile Ile Ser Cys Met₄₃₀ Leu Phe
Phe Lys Lys₄₃₅ Lys Lys Arg Asn Tyr₄₄₀ Ser Asn Pro Phe Phe₄₄₅ Arg Lys Lys
Tyr Ile₄₅₀ Leu Glu Ile Leu Lys₄₅₅ Val Pro Ser His Lys₄₆₀ Thr Tyr Phe Ala
Cys Phe Ala Val Ser Gln₄₇₀ Asp Thr Asp Gly Tyr₄₇₅ Lys Phe Asn Ser Asp₄₈₀
Arg Ala Ser Ile Asp₄₈₅ Glu Val Leu His Thr₄₉₀ Glu Val Thr Glu Gly₄₉₅ Ile
Ile Cys Gly Phe₅₀₀ Val Tyr Asp Glu Pro₅₀₅ Ser Glu Ser Tyr Ile₅₁₀ Ile Trp
Asn Val Ser₅₁₅ His Gly Lys His Gln₅₂₀ Ile Ser Arg Val Gly₅₂₅ Ala Asn Pro
Glu Lys₅₃₀ Ile Phe Glu Gly Gln₅₃₅ Asn Ile Gly Trp Ile₅₄₀ Gly Val Asn Pro
Ser Asn Lys His Val Glu₅₅₀ Ile Ala Ser Asn Asp₅₅₅ Gly Lys Phe Ile Asp₅₆₀
Leu Asn Thr Lys Glu₅₆₅ Glu Leu Phe Lys Ile₅₇₀ Asp Lys Phe Glu Ser₅₇₅ Thr
Glu Val His Phe₅₈₀ Ile Gln Val Cys His₅₈₅ Gly Ile Leu Asn His₅₉₀ His Val
Ile Gln Val Asp₅₉₅ Asn Ser Met Leu₆₀₀ Phe Leu Asp Ser Glu Arg Val Ser
Gln Asp Ala Ile Ser Ile Leu₆₁₅ Thr Arg Gly Ser Asp₆₂₀ Ile Leu Leu Ile
Asp Phe Asp Asn Lys Leu₆₃₀ Arg Phe Ile Asp Ala₆₃₅ Glu Ser Gly Lys Thr₆₄₀
Leu Glu Asp Val Arg₆₄₅ Asn Val Glu Ala Gly₆₅₀ Cys Glu Leu Val Ala₆₅₅ Cys

Asp Ser Gln Ser Ala Asn Val Ile Leu Gln Ala Ala Arg Gly Asn Leu
 660 665 670
 Glu Thr Ile Gln Pro Arg Arg Tyr Val Met Ala His Thr Arg Asp Leu
 675 680 685
 Leu Asp Arg Lys Glu Tyr Ile Ala Ser Phe Lys Trp Met Lys Lys His
 690 695 700
 Arg Val Asp Met Ser Phe Ala Met Lys Tyr Lys Gly Asp Asp Leu Glu
 705 710 715 720
 Asp Asp Ile Pro Ile Trp Leu Lys Thr Ser Asn Asp Ser Gln Phe Leu
 725 730 735
 Glu Gln Leu Leu Ile Ser Cys Thr Glu Val Phe Glu Asp Ala Gly Ser
 740 745 750
 Ser Leu Cys Met Thr Val Ala Arg Tyr Val Arg Asp Leu Ser Asp Ala
 755 760 765
 Glu Lys Thr Lys Met Phe Pro Leu Leu Leu Thr Ala Leu Leu Ser Ala
 770 775 780
 Arg Ser Lys Pro Ser Lys Val Asn Asp Cys Leu Lys Glu Val Gln Glu
 785 790 795 800
 His Val Glu Lys Ile Ala Asp Arg Lys Asp Val Phe Thr Arg Asn Ser
 805 810 815
 Leu His His Ile Ser Phe Phe Val Pro Ala Lys Glu Leu Phe Asn Cys
 820 825 830
 Ala Leu Ser Thr Tyr Asp Leu Lys Leu Ala Gln Gln Val Ala Glu Ala
 835 840 845
 Ser Asn Tyr Asp Pro Lys Glu Tyr Leu Pro Val Leu Asn Lys Leu Asn
 850 855 860
 Arg Val Met Cys Thr Leu Glu Arg Gln Tyr Arg Ile Asn Val Val Arg
 865 870 875 880
 Glu Ala Trp Ile Asp Ala Val Ser Ser Leu Phe Leu Leu Asp Ser Ser
 885 890 895
 Lys Glu Arg Gly Ser Glu Glu Thr Trp Trp Asn Asp Ile Glu Asp Ile
 900 905 910
 Ile Ile Gln Arg Glu Lys Leu Tyr Gln Asp Ala Leu Thr Leu Val Lys
 915 920 925
 Pro Gly Asp Arg Arg Tyr Lys Gln Cys Cys Glu Leu Tyr Ala Glu Leu
 930 935 940
 Glu Arg Lys Val His Trp Arg Glu Ala Ala Leu Phe Tyr Glu Leu Ser
 945 950 955 960
 Gly Asn Ser Glu Lys Thr Leu Lys Cys Trp Glu Met Ser Arg Asp Val
 965 970 975
 Asp Gly Leu Ala Ala Ser Ala Arg Arg Leu Ala Val Asp Ala Gly Lys
 980 985 990
 Leu Lys Ile His Ala Ile Lys Met Ser Thr Thr Leu Arg Glu Ala Arg

995	1000	1005
Gln Pro Lys Glu Leu Ala Lys Ala Leu Lys Leu Ala Gly Ser Ser Ser		
1010	1015	1020
Thr Gln Ile Val His Val Leu Cys Asp Ala Phe Glu Trp Leu Asp Ala		
1025	1030	1035 1040
Ser Arg Glu Val Glu Val Gly Lys Glu Glu Ala Leu Lys Lys Ala Ala		
	1045	1050 1055
Leu Ser Arg Asn Asp Gln Val Leu Met Asp Leu Glu Arg Arg Lys Thr		
	1060	1065 1070
Glu Phe Glu Asn Tyr Lys Lys Arg Leu Ala Val Val Arg Glu Asn Lys		
	1075	1080 1085
Leu Lys Arg Val Glu Gln Phe Ala Ala Gly Glu Val Asp Asp Leu Arg		
	1090	1095 1100
Asp Asp Ile Ser Val Ile Ser Ser Ile Ser Ser Arg Ser Gly Ser Ser		
1105	1110	1115 1120
Lys Val Ser Met Ala Ser Thr Val Arg Arg Lys Gln Ile Glu Lys Lys		
	1125	1130 1135
Lys Ser Ser Leu Lys Glu Gly Gly Glu Tyr Glu Asp Ser Ala Leu Leu		
	1140	1145 1150
Asn Val Leu Ser Glu Asn Tyr Arg Trp Leu Glu Asn Ile Gly Ser Glu		
	1155	1160 1165
Phe Cys Phe Pro Trp Asn Phe Asn Ile Leu		
1170	1175	

<210> 10
 <211> 17
 <212> DNA
 <213> Mus sp.

<400> 10
 ttttttttcc ctcagaa

17

<210> 11
 <211> 17
 <212> DNA
 <213> Mus sp.

<400> 11
 tatgctttgt gaaaggt

17

<210> 12
 <211> 17
 <212> DNA
 <213> Mus sp.

<400> 12
 ttttctctga tgcagct

17

<210> 13

<211> 17	
<212> DNA	
<213> Mus sp.	
<400> 13	
acatgaactc ctaagct	17
<210> 14	
<211> 17	
<212> DNA	
<213> Mus sp.	
<400> 14	
cttgaaaaac tgtaggc	17
<210> 15	
<211> 17	
<212> DNA	
<213> Mus sp.	
<400> 15	
ggtgtctctc ttcagcc	17
<210> 16	
<211> 17	
<212> DNA	
<213> Mus sp.	
<400> 16	
ctacctcctt tgcag ag	17
<210> 17	
<211> 17	
<212> DNA	
<213> Mus sp.	
<400> 17	
aggttctgct ttcagac	17
<210> 18	
<211> 17	
<212> DNA	
<213> Mus sp.	
<400> 18	
ttttgtccct accaggt	17
<210> 19	
<211> 17	
<212> DNA	
<213> Mus sp.	
<400> 19	
tccctccaca cacagtc	17
<210> 20	
<211> 17	
<212> DNA	

<213> Mus sp.

<400> 20
cttttcattg tgtagac 17

<210> 21
<211> 17
<212> DNA
<213> Mus sp.

<400> 21
ttttttgttt tctaggt 17

<210> 22
<211> 17
<212> DNA
<213> Mus sp.

<400> 22
ctaataatttg aacagga 17

<210> 23
<211> 17
<212> DNA
<213> Mus sp.

<400> 23
ttttttttgc tttagtt 17

<210> 24
<211> 17
<212> DNA
<213> Mus sp.

<400> 24
ttaatcttac aacagag 17

<210> 25
<211> 17
<212> DNA
<213> Mus sp.

<400> 25
ttcatttctt tgcagga 17

<210> 26
<211> 17
<212> DNA
<213> Mus sp.

<400> 26
tcttgctgtg tgcaggt 17

<210> 27
<211> 17
<212> DNA
<213> Mus sp.

<400> 27 cactgggtatt tttagt	17
<210> 28 <211> 17 <212> DNA <213> Mus sp.	
<400> 28 gggtttttatt ttgagat	17
<210> 29 <211> 17 <212> DNA <213> Mus sp.	
<400> 29 ttcctgtcct cacagac	17
<210> 30 <211> 17 <212> DNA <213> Mus sp.	
<400> 30 tactttcttt gataggt	17
<210> 31 <211> 17 <212> DNA <213> Mus sp.	
<400> 31 tactgtgggt cttaggg	17
<210> 32 <211> 17 <212> DNA <213> Mus sp.	
<400> 32 cacttactac ctcaggt	17
<210> 33 <211> 17 <212> DNA <213> Mus sp.	
<400> 33 cttaaaactcc aacagga	17
<210> 34 <211> 17 <212> DNA <213> Mus sp.	
<400> 34 aaacttttttc ctaggga	17

<210> 35
<211> 17
<212> DNA
<213> Mus sp.

<400> 35
tttttttttt ttcagga 17

<210> 36
<211> 17
<212> DNA
<213> Mus sp.

<400> 36
cgtctcttgt cacaggc 17

<210> 37
<211> 17
<212> DNA
<213> Mus sp.

<400> 37
ttgctgtctt ttcagga 17

<210> 38
<211> 17
<212> DNA
<213> Mus sp.

<400> 38
ctcttccctt gtcagga 17

<210> 39
<211> 17
<212> DNA
<213> Mus sp.

<400> 39
tttcttccct cttaggt 17

<210> 40
<211> 17
<212> DNA
<213> Mus sp.

<400> 40
attatgcatc ctcagcc 17

<210> 41
<211> 17
<212> DNA
<213> Mus sp.

<400> 41
gttcatcttc tctagat 17

<210> 42
<211> 17
<212> DNA
<213> Mus sp.

<400> 42
tgtaatttct gacagga

17

<210> 43
<211> 17
<212> DNA
<213> Mus sp.

<400> 43
ccatttcttc tctagat

17

<210> 44
<211> 17
<212> DNA
<213> Mus sp.

<400> 44
ctgttttctg cttaggt

17

<210> 45
<211> 17
<212> DNA
<213> Mus sp.

<400> 45
cattcttgct tccagat

17

<210> 46
<211> 17
<212> DNA
<213> Mus sp.

<400> 46
aggtgagcat tcgcccg

17

<210> 47
<211> 17
<212> DNA
<213> Mus sp.

<400> 47
aagtaggtca ctgatgc

17

<210> 48
<211> 17
<212> DNA
<213> Mus sp.

<400> 48
aggtaggtgt aaggcct

17

<210> 49
<211> 17

<212> DNA	
<213> Mus sp.	
<400> 49	
aggtaagctt tgcactg	17
<210> 50	
<211> 17	
<212> DNA	
<213> Mus sp.	
<400> 50	
aggtaagcgt ttcttgg	17
<210> 51	
<211> 17	
<212> DNA	
<213> Mus sp.	
<400> 51	
tggttaaggcg ggatgat	17
<210> 52	
<211> 17	
<212> DNA	
<213> Mus sp.	
<400> 52	
tggtgtctct cttcagc	17
<210> 53	
<211> 17	
<212> DNA	
<213> Mus sp.	
<400> 53	
aagtgagtga gcataaa	17
<210> 54	
<211> 17	
<212> DNA	
<213> Mus sp.	
<400> 54	
aggtaggggt cagagtt	17
<210> 55	
<211> 17	
<212> DNA	
<213> Mus sp.	
<400> 55	
tggtatgaca gcttgtg	17
<210> 56	
<211> 17	
<212> DNA	
<213> Mus sp.	

<400> 56
aagtaagttg ctgcgaa 17

<210> 57
<211> 17
<212> DNA
<213> Mus sp.

<400> 57
tggtaagtgg aagcagg 17

<210> 58
<211> 17
<212> DNA
<213> Mus sp.

<400> 58
tcgtaagttc ctaaata 17

<210> 59
<211> 17
<212> DNA
<213> Mus sp.

<400> 59
aggtatcatg gttcatc 17

<210> 60
<211> 17
<212> DNA
<213> Mus sp.

<400> 60
gggtgaggat cagagtt 17

<210> 61
<211> 17
<212> DNA
<213> Mus sp.

<400> 61
aggtgaatag acacggc 17

<210> 62
<211> 17
<212> DNA
<213> Mus sp.

<400> 62
aggtatgtag gcttggt 17

<210> 63
<211> 17
<212> DNA
<213> Mus sp.

<400> 63

aagtaagctc tcctata 17

<210> 64
<211> 17
<212> DNA
<213> Mus sp.

<400> 64
aggtaagctg actcttc 17

<210> 65
<211> 17
<212> DNA
<213> Mus sp.

<400> 65
aagtaagtat ttattct 17

<210> 66
<211> 17
<212> DNA
<213> Mus sp.

<400> 66
aggtacactt tgcgtct 17

<210> 67
<211> 17
<212> DNA
<213> Mus sp.

<400> 67
aggtaagtat tttgata 17

<210> 68
<211> 17
<212> DNA
<213> Mus sp.

<400> 68
aagtgggtgc tgtgtgt 17

<210> 69
<211> 17
<212> DNA
<213> Mus sp.

<400> 69
aggtagagac ctgcgcg 17

<210> 70
<211> 17
<212> DNA
<213> Mus sp.

<400> 70
aggtatgtgg agttgag 17

<210> 71
<211> 17
<212> DNA
<213> Mus sp.

<400> 71
tggttaagggt ttttttt 17

<210> 72
<211> 17
<212> DNA
<213> Mus sp.

<400> 72
aggtatgtgg tgggtta 17

<210> 73
<211> 17
<212> DNA
<213> Mus sp.

<400> 73
aggtaagcag ggccatt 17

<210> 74
<211> 17
<212> DNA
<213> Mus sp.

<400> 74
aggtgagctc ctccccg 17

<210> 75
<211> 17
<212> DNA
<213> Mus sp.

<400> 75
tggttaaggaa gctctga 17

<210> 76
<211> 17
<212> DNA
<213> Mus sp.

<400> 76
aggtgaggat tacattt 17

<210> 77
<211> 17
<212> DNA
<213> Mus sp.

<400> 77
gggtgagtgc ctccaaa 17

<210> 78

<211> 17
 <212> DNA
 <213> Mus sp.

 <400> 78
 gcgtacgtac gagacct 17

 <210> 79
 <211> 17
 <212> DNA
 <213> Mus sp.

 <400> 79
 aggtatggct tcagtgc 17

 <210> 80
 <211> 17
 <212> DNA
 <213> Mus sp.

 <400> 80
 cggttaagctt cctcaga 17

 <210> 81
 <211> 17
 <212> DNA
 <213> Mus sp.

 <400> 81
 cggtgtactg ctcgttc 17

 <210> 82
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Primer

 <400> 82
 gccagtgttt ttgcctgag 19

 <210> 83
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Primer

 <400> 83
 cggtattgtca ctgttgtgc 19

 <210> 84
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence: Primer

<400> 84
gactgctctc atagcatcgc 20

<210> 85
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 85
aagtaagygc cattg 15

<210> 86
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 86
ggttcacsga ttgtc 15

<210> 87
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 87
ggcgtcgtag aaattgc 17

<210> 88
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 88
gtggtgctga aggggcaggc 20

<210> 89
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 89
tacagactta 10